BETUL



Muktagiri Hill temples.

CENTRAL PROVINCES DISTRICT GAZETTEERS

BETUL DISTRICT

VOLUME A.

DESCRIPTIVE.

EDITED BY R. V. RUSSELL, I.C.S.

ALLAHABAD
PRINTED AT THE PIONEER PRESS

1907

PREFATORY NOTE.

The extant Settlement Reports on the Betūl District are those of Mr. W. Ramsay (1866) and Mr. B. P. Standen (1901). Mr. Standen's Report contains a very full and valuable account of all subjects connected with agriculture and land-revenue administration and copious extracts from it have been inserted in the Gazetteer. The chapter on Agriculture is contributed by Mr. L. E. P. Gaskin, for three years Deputy Commissioner of Betūl and subsequently Director of Agriculture. The notices of the Gonds and Korkūs are compiled from monographs on those tribes written by Mr. Gangā Prasād Khatri, when Forest Divisional Officer of Betūl. The notice on Botany is taken from papers furnished by Mr. Gangā Prasād Khatrī and Mr. A. Hunt, Forest Divisional Officers. A report on climate and diseases has been received from Dr T. W. Quinn, Civil Surgeon. Mr. Sundar Lāl, Extra Assistant Commissioner, has submitted most of the reports asked for from the District and has contributed some useful information. The services of Mr. Hīra Lāl, Assistant Gazetteer Superintendent, have as usual been of much value during the composition of the volume. The proof has been checked by Mr. Arthur Mayne, Deputy Commissioner.

NAGPUR: R. V. R.
The 16th May 1906.

BETUL DISTRICT GAZETTEER.

CONTENTS.

Chapter V.—LOANS, PRICES, WAGES, MANUFACTURES, TRADE AND COMMUNICATIONS.

Chapter VI.—FORESTS AND MINERALS.

LIST OF MAPS AND PHOTOGRAPHS.

PARAGRAPH INDEX.

CHAPTER I.—GENERAL DESCRIPTION.

CHAPTER II.—HISTORY AND ARCHÆOLOGY.

CHAPTER IV.—AGRICULTURE.

Page

CHAPTER VI.—FORESTS AND MINERALS.

CHAPTER VII.—FAMINE.

CHAPTER VIII.—LAND REVENUE ADMINISTRATION.

Chapter IX.—GENERAL ADMINISTRATION.

APPENDIX.—GAZETTEER OF TAHSILS, TOWNS, IMPORTANT VILLAGES, RIVERS AND HILLS.

List of the Deputy Commissioners who have held charge of the Betūl District with the dates of their periods of office.

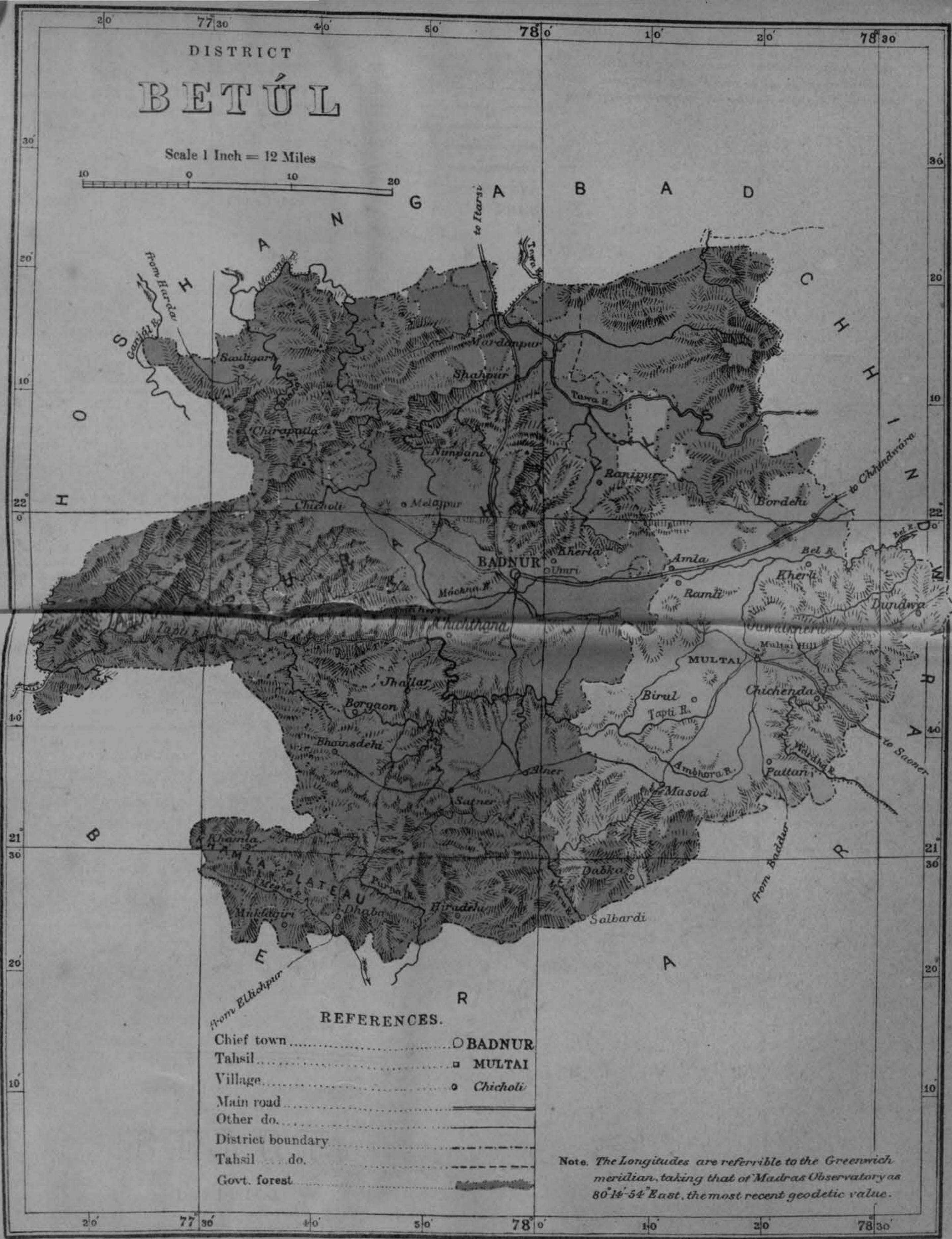
Name of Deputy Commissioner.	Period. From	Period. To
1. Captain R. Low ...	15-5-1823	Not known.
2. Major Ousely. In charge ...	February 1831	
3. Captain Crawford ...	April 1831	
4. M. Smith, Esq. ...	16-3-1832	
5. M. C. Ommaney, Esq.	21-4-1835	
6. Captain W. A. Bolland	31-10-1838	
7. G. P. Thomas, Esq. ...	30-11-1838	
8. William Hore, Esq. ...	28-12-1842	
9. C. Hasel, Esq. ...	1-5-1843	
10. Captain C. Brown ...	26-2-1844	
11. Lieutenant A. H. Ternan	5-12-1844	
12. J. Dainell, Esq. ...	14-5-1845	
13. W. Seddons, Esq. ...	January 1846	
14. Lieutenant A. H. Ternan	16-1-1847	
15. W. R. Best, Esq. ...	24-10-1848	
16. Lieutenant F.W. Pinkney	11-5-1852	
17. Captain W. C. Western	6-10-1852	
18. A. C. Gordon, Esq. ...	...	
19. Captain W. C. Western	...	
20. Captain J. N. H. Maclean	...	
21. Captain C. Baldwin .	...	
22. Captain F. A. Fenton	25-3-1859	25-9-1859
23. H. J. MacGeorge, Esq.	26-9-1859	5-12-1859
24. Captain C. Baldwin ...	6-12-1859	13-7-1860
25. Captain A. W. Mayne	14-7-1860	25-3-1861
26. Captain F. A. Fenton	26-3-1861	18-2-1862
27. Captain C. Baldwin ..	19-2-1862	13-7-1863
28. Lieutenant G. A. A. Warner ...	14-7-1863	16-1-1865
29. Lieutenant E. Twyford	17-1-1865	18-2-1867
30. Colonel R. T. Snow ...	19-2-1867	30-9-1868

List of the Deputy Commissioners who have held charge of the Betūl District with the dates of their periods of office—(continued).

Name of Deputy Commissioner.	Period.	
	From	To
31. Captain H. Lugard ...	1-10-1868	2-12-1868
32. Captain J. Ducat ...	3-12-1868	23-4-1869
33. Lieut.-Col. J. Ashburner	24-4-1869	31-12-1869
34. Lieut.-Col. Waddington	1-1-1870	8-7-1870
35. Major C. L. R. Glasfurd ...	9-7-1870	6-6-1872
36. J. W. Tawney, Esq. ..	7-6-1872	31-12-1872
37. Captain C. H. Grace...	1-1-1873	18-3-1874
38. Frederick Venning, Esq.	19-3-1874	17-6-1874
39. Lieut.-Col. J. Ashburner	18-6-1874	29-10-1875
40. Major C. H. Plowden	30-10-1875	12-6-1877
41. Major T. H. B. Brooke	13-6-1877	26-5-1879
42. H. J. MacGeorge, Esq.	27-5-1879	26-1-1881
43 F. C. Berry, Esq. ...	27-1-1881	9-3-1881
44. H. J. MacGeorge, Esq.	10-3-1881	19-11-1883
45. W. Nedham, Esq. ...	20-11-1883	22-1-1884
46. Major J. W. Macdougall	23-1-1884	6-11-1886
47. T. Drysdale, Esq. ...	7-11-1886	20-10-1887
48. H. A. Crump, Esq., I.C.S. ...	21-10-1887	8-11-1887
49. Lieut.-Col. J. A. Temple	9-11-1887	28-3-1890
50. H.A. Crump, Esq., I.C.S.	29-3-1890	22-4-1890
51. Col. W. Vertue ...	23-4-1890	1-9-1892
52. R. A. B. Chapman, Esq., I.C.S. ...	2-9-1892	1-12-1892
53 Col. W. Vertue ...	2-12-1892	31-10-1893
54. Col. J. W. Macdougall	1-11-1893	24-3-1895
55. B. P. Standen, Esq., I.C.S. ...	25-3-1895	7-4-1895
56. H. F. Mayes, Esq., I.C.S.	8-4-1895	9-5-1895

List of the Deputy Commissioners who have held charge of the Betūl District with the dates of their periods of office—(concluded).

Name of Deputy Commissioner.	Period.	
	From	To
57. F. S. Tabor, Esq., I.C.S.	10-5-1895	4-8-1896
58. R. V. Russell, Esq., I.C.S. ..	5-8-1896	4-11-1896
59. F. S. Tabor, Esq., I.C.S.	5-11-1896	29-12-1897
60. L. A. G. Clarke, Esq., I.C.S. ...	30-12-1897	14-3-1898
61. A. Mayne, Esq., I.C.S.	15-3-1898	28-3-1898
62. L. A. G. Clarke, Esq., I.C.S. ...	29-3-1898	17-10-1898
63. R. F. Grimley, Esq., I.C.S. ...	18-10-1898	15-1-1899
64. W. M. Crawford, Esq., I.C.S. ..	16-1-1899	3-4-1899
65. B. P. Standen, Esq., I.C.S. ...	4-4-1899	12-3-1901
66. C. G. Leftwich, Esq., I.C.S. ...	13-3-1901	16-4-1902
67. C. A. P. Rogers, Esq., I.C.S. ...	17-4-1902	7-12-1902
68. L. E. P. Gaskin, Esq., I.C.S. ...	8-12-1902	30-6-1904
69. Mr. Walayat Ullah ...	1-7-1904	31-7-1904
70. L. E. P. Gaskin, Esq., I.C.S. ...	1-8-1904	12-11-1905
71. A. Mayne, Esq., I.C.S.	13-11-1905	


DISTRICT
BETÚL
Scale 1 Inch = 12 Miles
HOSHANGABAD
CHHINDWARA
BERAR
BADNUR
MULTAI
Chicholi
Mardanpur
Shahpur
Sauligarh
Chirapatla
Nimpani
Ranipur
Bordehi
Kherla
Umri
Amla
Ramli
Kherli
Dunawa
Multai Hill
Birul
Tapti R.
Chichenda
Pattan
Ambhora R.
Masod
Jhallar
Borgaon
Bhainsdehi
Satner
Khamla
KHAMLA PLATEAU
Dhaba
Muktagiri
Purna R.
Hiradehi
Dabka
Salbardi
Tapti R.
Machna R.
Tawa R.
Bel R.
Wardha R.
Morand R.
Ganjal R.
to Itarsi
from Harda
to Chhindwara
to Saoner
from Baddur
from Ellichpur
REFERENCES.
Chief town .... BADNUR
Tahsil .... MULTAI
Village .... Chicholi
Main road
Other do.
District boundary
Tahsil do.
Govt. forest
Note. The Longitudes are referrible to the Greenwich meridian, taking that of Madras Observatory as 80° 14' 54" East, the most recent geodetic value.

BETUL DISTRICT.

CHAPTER I.

GENERAL DESCRIPTION.

SITUATION AND PHYSICAL FEATURES.

Situation and physical features.

1. [1]The Betūl District belongs to the Nerbudda Division of the Central Provinces and is situated between 21° 22′ and 22° 23′ N. and 77° 10′ and 78° 33′ E. on the Sātpurā plateau. Betūl is the most westerly of the four plateau Districts and is bounded on the north by Hoshangābād, on the west by that District and Nimār and the Amraoti District of Berār, on the south by the Amraoti District and on the east by the Chhindwāra District and jāgīrs. The District occupies nearly the whole width of the range between the valley of the Nerbudda on the north and the Berār plains on the south, and with the exception of 15 or 20 villages which lie below the Ghāts on the southern border practically the whole of its area is situated on the plateau. Its shape is very compact, and with the exception of slight projections on the east and west would form almost a complete circle with the headquarters town of Badnūr as its centre. Its greatest length from north to south is 66 miles and breadth from east to west 86 miles. Its area is 3826 square miles and it is the eleventh District in the Central Provinces in point of size. It is divided into two tahsīls of which Betūl with an area of 2770 square miles occupies the whole western and central portions, while Multai, only 1056 square miles in

[1] This description down to paragraph 4 is reproduced almost *verbatim* from Mr. Standen's Settlement Report.

area, lies to the east. The mean elevation of the plateau is about 2000 feet and the surface slopes generally from east to west. With the exception of the small valleys of the Bel and Wardhā rivers, the District is drained into the Indian ocean by the Tāpti and the tributaries of the Nerbudda. Roughly speaking the northern half is watered by rivers flowing south and west to the Nerbudda and the southern half by the Tāpti and its affluents. The Bel and Wardhā rise on the northern and eastern edges respectively of the central plateau and flowing east and south join their waters to the Waingangā and ultimately to the Godāvari which carries them to the Bay of Bengal. The main chain of the Sātpurās running near the northern borders of the range, reaches its highest point just beyond the north-east corner of the Betūl District. Shortly after crossing the border it is interrupted by the wide valley of the Tawā and its tributaries the Daryākho and Phophas. Rising again near Shāhpur it runs a few miles due west and breaks off in the hills of Bhanwargarh and Jāmgarh which stand above the Morand valley. Thereafter the backbone of the range, so noticeable further east and north, is lost in a tumbled mass of lower peaks and ridges intersected in all directions by narrow valleys. To the south of the country occupied by the main range and the spurs which it throws off, there lies a wide undulating plateau, covering about half the area of the District, and stretching on the east to the forest-clad gorge of the Wardhā river near the Chhindwāra border, on the south to the belt of steep hills and deep ravines which mark the final upheaval of the land before it falls to the level of the Berār plains, and on the west to the wild country of Kālībhīt and the Melghāt, of which a large slice falls within Betūl. The District may be described briefly as a central plateau surrounded by a belt of hilly and forest-covered country, wide on the north and west and narrow on the east and south. The rock formation is sandstone in the northern third of the District and elsewhere trap. In the

sandstone country the predominant soil is thin and sandy and in the trap country shallow and very stony. The District may thus be broadly divided into three tracts, the sandstone area to the north, the trap plateau in the centre and the belt of hills also of basaltic formation to the south.

The sandstone area.

2. A glance at the map will show that the Bel and Māchna rivers rising close together and flowing the one due east and the other due west form a line running nearly due east and west across two-thirds of the width of the District. If this line were continued to the western border it would approximately mark the boundary between the sandstone formation on the north and the trap on the south. The area included in the former is occupied by the main chain of the Sātpurās along the north, and by another distinctly marked range which crosses the main one at right angles at Nīmpāni going north into the Hoshangābād District and south to Badnūr, near which town it terminates. In the north-east and north-west of the District lie the valleys of the Tawā and Morand rivers, and further south the villages on the north bank of the Bel and a part of the valley of the Tawā are included in the sandstone area. About half of the tract thus comprised is covered by forest-clad ranges, which are of no use for agricultural purposes and are included in the Government reserves. In the four large valleys between the hills lies an undulating country intersected by innumerable water-courses and covered principally with a thin sandy soil of little value for cultivation. A narrow strip of better land borders the larger streams, but the best fields in most villages are fit for nothing better than gram and any considerable blocks of soil sufficiently fertile for wheat are rarely met with. Poor as the land is, it is nevertheless nearly fully cultivated except in that part which lies between the main ridge of the Sātpurās and the Hoshangābād border. Though the prevailing soil is of little value for cultivation many kinds of forest trees grow

to perfection, and among them several which bear valuable flowers or fruit, such as the mahuā (*Bassia latifolia*), *harrā* (*Terminalia Chebula*) and *achār* (*Buchanania latifolia*). These trees are now protected by law and it has always been the custom to spare them from the axe when clearing land for cultivation, so that the mālguzāri lands are thickly dotted with fine trees. In the rains when the ground is green with young crops or grass and the trees are in full leaf, the clumps of mahuā and *harrā* lend the country a singular resemblance to an English park.

The central plateau.

3. The central trap plateau contains villages of every grade from the best to the poorest conceivable. There is no Government forest in this part of the District, and indeed except in the valley of the Tāpti which cuts a deep groove through the southern part of the plateau, and on the steep sides of some of the small hills which run here and there across its face, mangoes by the wells are almost the only trees to be seen. The most fertile tracts are the small plain containing about 50 villages immediately around Betūl, and the valleys of the Ambhorā and Tāpti in the south of the Multai tahsīl, in which eighty or ninety villages are situated. The whole of the Betūl plain and the greater part of the other areas are covered with black soil. Towards the east the elevation rises about 400 feet to the plain on which the town of Multai stands, sinking again further to the south and west. Here the surface is formed of a rolling stony plateau intersected by numerous narrow valleys. Every village has a black soil valley of greater or less extent but the proportion of fertile land is usually small, except where a large stream winds through the stony hills as at Jawalkhedā, Bhainsdehi and Atner, and stretches measuring some thousands of acres are found. The whole plateau is blessed with an excellent water-supply generally at small depth from the surface, and wells are numerous, especially in the villages round Betūl and the higher parts of the Multai

plateau. Many of the small streams contain running water until the end of the cold weather and there are four or five perennial rivers. The poorer parts of the plateau, owing to the lack of trees and the terribly stony character of the soil, present except in the rains a very barren and unpromising appearance, in strong contrast to the valleys filled with wheat and sugarcane, and one wonders that such apparently useless soil should have been taken up for cultivation; but these uplands with a normal rainfall and frequent resting fallows will grow fair crops of juār, oilseeds and the lesser millets, and are by no means so valueless as they appear when not under crop. Large villages are fairly numerous in this section of the District and the best parts of the plateau are thickly populated.

The southern hills.

4. On all sides except the north the plateau is hemmed in by a border of trap hills forming the southern range of the Sātpurās and leading down to the Berār plains. On the east the hills form a narrow belt through which the Wardhā runs in a deep gorge. On the south too the belt of hilly country is narrow at its east end, south of Pattan and Māsod, but widens towards the west till at the south-west corner of the District it measures about fifteen miles from north to south. The formation of the hills in this part of the country is curious, the sides being exceedingly precipitous, often nearly perpendicular for 500 feet or more, and the valleys narrow, while the tops of the hills are broad and flat. In the west the Khāmla plateau affords sufficient culturable land to support a block of ten or fifteen mālguzāri villages, but elsewhere the village lands are much scattered, lying in small narrow valleys running up into the hills from the Berārs and in a narrow strip of level land lying between the foot-hills and the border. The greater part of the area has been reserved as Government forest, but the flat tops of all the larger hills have been cultivated for many years and support some considerable villages, which have now been

excised for ryotwāri settlement. The soil is shallow and stony, and cotton and juār are the crops principally grown. The Khāmla plateau will bear scarcely anything but kutkī and is chiefly of value as a breeding ground for cattle. On the west the forest-covered valley of the Tāpti projects between the Hoshangābād and Amraoti Districts in an oblong some fifteen miles wide by twenty long. The whole area is a confused mass of small hills and valleys and is nearly all under reserved forest. The mālguzāri villages lie generally in the narrow strip of level to the south bank of the Tāpti and in a tract of undulating land to the north-east where the trap formation merges into sandstone.

Elevation.

5. The elevation of the plain portion of the District rises from about 1500 feet in the extreme north and north-west to about 2200 feet on the Betūl plateau. Badnūr is 2173 feet high and Betūl 2189. The Multai plateau to the east is about 400 feet higher, Multai itself which is situated on the division of the watershed and is therefore one of the highest points, being 2526 feet above sea-level. From here the plateau slopes to the south, but not to a very large extent. The general slope of the surface is from east to west and in some portions of the west of the District the elevation sinks to 1500 feet. The highest points are found in the hills of the extreme south-west where the village of Antarmāl has an elevation of 3540 feet and the Khāmla plateau of 3789. The peaks in the north are usually between 2000 and 2500 feet in elevation, but the large mass of Bhanwargarh runs up to 2930 feet and Narwargarh to 2570, while the hill of Chiklār near Badnūr is 2588 feet high. The Kilendeo hill in the north-east of the Multai tahsīl is 3430 feet in elevation.

Scenery. The valley of the Tāpti.

6. Forty years ago Forsyth described the upper Tāpti valley as follows, and though cultivation has extended since the period when he wrote and conservation has decreased the frequency of forest fires, his sketch is still



Waterfall on Muktagiri Hills.

Photo.-Mechl Dept., Thomason College, Roorkee.

sufficiently accurate to be reproduced :—'Rising among the 'western spurs of the Sātpurā range, the river flows for a 'short distance over the level plateau of the Betūl District 'in a shallow channel, which in the hot season forms a chain 'of silent pools fringed by great *kohā*[1] trees, and by the thick 'green cover of *jāmun*[2] and *karondā*[3] in which tigers delight 'to dwell. The surrounding country in this part of its 'course is partially cleared and cultivated with rice and sugar-'cane. Presently, however, it commences its descent towards 'the level of the lower plains, plunging into a glen river 'through the basalt, and assumes the character of a mountain 'torrent. Here and there it widens out into little bays of 'level valley land; but is henceforth, for a hundred miles or 'so, generally shut in by high banks rising from the edge of 'its channel. Through these the rapid drainage of the higher 'hills has cut innumerable narrow ravines down to the level 'of its bed, which spread out into an interminable series of 'rocky gullies. The surface of these tracts has been weather-'ed in places into a penurious soil, leaving multitudes of 'round black boulders of trap, ranging in size from an egg to 'a small house, and salted over with small white agate splin-'ters, both apparently eliminated from the mother rock in 'the process of decomposition. This surface is covered with 'a growth of coarse grass, varying according to the depth of 'the soil from a few inches to several feet in height, and is 'studded with small trees, of which ninety-nine in every hun-'dred are the *sāleh* or frankincense tree (*Boswellia serrata*). The 'aspect of these vast forests of the *Boswellia* of which the coun-'try about the Tāpti is a specimen, and which cover, I should 'say, fully one-half of the whole of this trap region, is very 'remarkable. During the height of the monsoon the grass 'is green, and the trees have thrown out a thin foliage of 'small bright-green pinnated leaves. The river beds too are

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1 Terminalia Arjuna. | 2 Eugenia Jambolana.
3 Carissa Carandas.

'then filled by foaming torrents, and the fervour of the sun is 'moderated by a canopy of grey clouds. But gradually as the 'clouds clear off and the rain ceases, a change occurs. The 'rivers shrink in their beds, till a trickling stream in a wide 'expanse of boulders represents the resistless mountain torrent 'of a month before, while the higher gullies are utterly dried 'up. The grass turns from green to yellow and bristles with 'a terrible armature of prickles, like needles of steel with the 'barbs of a fish-hook, which catch in each other and mat 'together into masses. Woe betide the undefended pedes-'trian in grass like this. Unless protected by leather, before 'he has gone half a mile, every stitch of his clothing will be 'run through and through, and pinned to his flesh by multi-'tudes of these barbs, causing the most intolerable pain. 'The foliage of the *sāleh* droops and withers after a few weeks 'of sunning; and its naked yellow stems then fill the pros-'pect like a vast army of skeletons. But even this stage is 'not the worst. It continues till the month of April intro-'duces the torrid summer season, when the fierce sun 'laps up the last particle of moisture in the basaltic 'regions.

Description of forest fires.

7. 'Then the grass has become like tinder and a thou-'sand accidents may set it on fire. The 'traveller dropping a light from his pipe, 'the wind carrying a spark from an en-'campment of jungle-hunting Banjārās, the torch of the belated 'traveller, and should it escape these accidents, then certainly 'the deliberate act of the graziers, who, with the first fall of 'rain in June, bring herds of cattle into these tracts to graze 'on the resulting new crop of grass, will start a jungle fire 'which nothing can stop till it burns itself out. Early in the hot 'season it is a fine sight to watch at night the long creeping 'red lines of the jungle fires on distant hillsides. From the 'hill fortress of Asīrgarh the eye ranges over the whole of 'the upper Tāpti valley; and at this season the whole coun-'try appears at night ringed with these lines of fire, curving

'with the curvature of the hills; here thin and scarcely 'visible where the grass is scanty on a bare hill-top; there 'flaring through tracts of long elephant grass, or wrapping 'some dried and sapless tree-stem in immense tongues of 'flame. By night a ruddy glow colours all the heaven above 'the spot; while by day a thick pall of smoke hangs 'over the valley. Near the scene the air is stifling and 'thick with falling flakes of ash. Wild animals have fled 'the neighbourhood; and clouds of insects rise before 'the advancing flames, to be devoured by myriads of 'birds collected seemingly from every end of the country. In-'numerable snakes and noxious vermin of all sorts perish in 'the fire, including many of the curious grass snake of these 'regions, which a diligent search will frequently discover 'twined among the matted masses of the spear-grass. It is 'a harmless creature living on insects and changes its colour 'from green to yellow along with the grass. When the fires 'are burnt out the spectacle is a dismal one indeed. Hill-'side after hillside of blackness relieved only here and there 'by a long streak of white ashes where a prostrate trunk has 'been consumed, and by the wilderness of *sāleh* skeletons 'scorched at the base, and above more yellow and ghastly 'than ever. Yet even in the heart of those parts of the 'basaltic region to which this description most fittingly ap-'plies, there are few tracts where at a little distance some 'oasis will not be found. The larger ravines are often filled 'with clumps of bamboo which never entirely lose their ver-'dure; and here and there a sheltered valley will be met, 'where there is either a pool, or moisture not far below the 'surface, with its fringe of verdure, and a few mahuā or mango 'trees, perhaps marking the site of some old village, deserted 'long ago beyond the memory of living man. In the central 'valley of the Tāpti also will be found at intervals bays of 'rich deep soil, with a moist substratum that is never entirely 'parched up, and carrying a greener grass which it is hard 'to burn, and often a covering of forest trees.'

GEOLOGY.

The trap area.

8. [1]The western and southern portions of the District are covered by the Deccan trap and the remainder by crystalline metamorphic Gondwāna and Lametā rocks, the latter consisting chiefly of sandstones and shales. The Gondwānas consist chiefly of sandstones and shales and the others of limestones, sandstones and clays. In the trap hills south of Betūl occur sedimentary intertrappean deposits abounding in fossils. The boundary of the trap rocks from Amlā to Sohāgpur and thence westward south of Betūl is natural and not faulted. Its features are well marked, the traps rising in a continuous range flat-topped as usual to the south, while the very granitoid metamorphics either occupy a level plain or form isolated hills and short ranges. Upon some of the latter outliers of trap occur, but they are of no great size. At one spot there is a small patch of conglomerate between the base of the trap and the metamorphics. Gneiss, rather less granitoid than further east, but still highly crystalline, forms the hills stretching across to the north of the civil station of Badnūr. Some crystalline limestone was found in them, but it was so much intermixed with felspar as to be useless for burning into lime. The plain of Betūl lying in the valley of the Māchna is composed of a thick alluvial deposit. Along the low range of trap hills to the south of the valley the beds are in part horizontal while in other places they have a very low southern dip. For some distance along the range there is a bed and in places probably two beds of intertrappean sedimentary deposits with numerous fossils. The fossiliferous bed is best exposed near the village of Lohāria and on the sides of the road from Betūl to Atner and Māsod. At the top of the *ghāt*, upon this road, there are many scattered fragments containing shells, wood and cyprides, but no bed is seen in place. On the

[1] The description of the trap formation is taken from an article by Mr. Blanford. Memoirs of the Geological Survey, Vol. VI, part 3.

face of the hill, however, a few feet below the top, there is a bed scarcely distinguishable in mineral character from the trap, from the débris of which it appears to have been composed, but abounding in fossils, especially *Physa Prinsepii*, *Lymnea*, *Paludina*, *Valvata* and plants. Lower down there is a thin band of very silicious rock resembling hornstone, also abounding in shells. The same sedimentary band or another also occurs south of Kherī on the Betūl-Ellichpur road, and again south of the Tāpti, near the top of the *ghāt* ascending to the tableland It abounds in fossils everywhere. The traps south of Betūl are generally horizontal until the neighbourhood of the scarp at the verge of the Berār plain. To the west of Betūl the metamorphic rocks disappear gradually beneath the trap, not being all covered up at once to the south but stretching in valleys far within the trap hills. Between the two series also in this direction conglomerates and sandstones are met with. There is a peculiar inlier of metamorphics and sandstone exposed in the Tāpti south-west of Betūl. To the north about Chiklī and Alampur the traps are horizontal, but they roll over to the south just north of the river, and the lower rocks are for the most part concealed by them. The Tāpti, however, runs in a deep narrow gorge in the bottom of which the infratrappean rocks are exposed again. On the road from Betūl to Ellichpur this trough of metamorphic rock is crossed, and the base of the trap south of the river appears to be decidedly lower than to the north, pointing either to a sharp southern dip of the trap or to the trap having filled in a valley on the pre-trappean surface.

The Gondwāna rocks.

9. To the north of the Betūl plateau, and occupying about a third of the whole District are rocks of the Gondwāna series including the Barākar coal-bearing strata. The Barākar rocks lie in a circular curve following roughly the courses of the Tawā and Bhaurā streams. They are bounded to the south by the older Tālcher and to the north by the newer Motur formation, and the

character and distribution of the rocks are thus described by Mr. Medlicott.[1] 'The whole rock series is composed exclusive-'ly of sandstone and clays, the former greatly preponderating 'except at the base. The character of the bedding throughout 'is massive and as is then generally the case irregular. 'It is only in the most general way that either rock can 'be said to prevail in any particular zone. There are, 'however, some types of composition and of texture more 'or less characteristic of different portions of the series, and 'it is upon these that the discrimination of the different groups 'in a great measure depends. Throughout a great thickness 'of strata at the base the sandstones are very fine-grained and 'of a pale greenish-yellow tint ; the clays are hard, splintery 'and silicious ; both often enclose large erratic blocks and 'other débris, forming coarse conglomerate, generally with a 'large preponderance of matrix. These beds form the *Tālcher* 'group. Above this comes the coal-bearing zone the *Barā-'kars* ; in which the sandstone is generally white, some-'what coarse and gritty ; the clays being shaly and carbo-'naceous. The sandstone of the next overlying band of the 'Motur horizon is softer than that of the coal-measures, more 'earthy and of mixed composition, and having corresponding 'grey, brown and greenish tints. The clays are lumpy, sandy 'and ochrey.

'The difficulty of demarcating the several formations is 'much increased by the disturbances which have affected the 'whole series, producing intricacies in the boundaries very 'troublesome to make out where the primary character of the 'groups is so undecided. The dips are not often high but 'they vary much; and faults are numerous, some having a 'great throw. There are also many trap dikes and quartz 'veins or reefs. These are seldom connected with actual 'dislocations of the strata, but they often disguise the mineral

[1] Records of the Geological Survey, Vol. VIII, part 3, 'The Shāhpur Coal-field.' The above quotation contains a few sentences extracted from the article.

'characters of the rock, and thus obstruct the identification 'of isolated outcrops.

'The south boundary of the area under notice is the base 'of the sedimentary or sandstone series,—the junction of the 'Tālcher group with the gneissic and schistose rocks forming 'the highland of Betūl. For the most part the contact occurs 'in the low ground along the base of the hills of crystalline 'rocks. It forms an exceedingly indented outline, being in 'fact the intersection of two very irregular surfaces—the 'present ground surface with that of the original floor of depo-'sition of the Tālchers. The actual contact is frequently 'exposed; nowhere better than in the Phophas, about two 'miles from its junction with the Tawā, where the gneissose 'schists are denuded in the bed of the river, and for several 'score yards along the left bank, the Tālcher boulder clay is 'seen resting flatly on a rough, sharply weathered, ancient 'surface. At some points this boundary seems to be a 'faulted one as in the section of the Amdhanā stream at the 'south base of the Bhanwargarh ridge. The contact here is 'very steep and crushed and is moreover on the run of the 'Māchna fault from north-east to south-west. In the west 'at the head of the Bhaurā and Sukī valleys, the Tālchers rise 'to a considerable height, forming the upland about Kotā 'between the Bhanwargarh crystalline ridge on the south 'and the basalt-capped ridges on the north. The formation 'is splendidly exposed in the scarps of this small plateau west 'of Mūrpa village.

'The northern limit of the area to be described is an arbi-'trary line in the great sandstone deposit overlying the coal 'measures. These beds belong to that middle portion of the 'Dāmuda series of the Sātpurā basin known as the Motur 'group, in which carbonaceous matter seems to be altogether 'wanting. The clays of the Motur group are often slightly 'ferruginous.

'The Motur-Barākar boundary line is on the whole well 'defined. At several distant places, as at Dolaria and Kosmerī

'on the Tawā and below Sonāda on the Bhaurā stream, the 'contrast is very well marked between the hard white sand-'stones of the coal measures and the softer earthy tinted rocks 'above. On the Tawā below its confluence with the Māchna 'the distinction is not so marked.

'The base of the Barākar group is very vaguely definable 'as a strict geological horizon. The characters of the two 'deposits are not only blended vertically by interstratification, 'but it would appear as if this also occurred horizontally—'beds of decided Barākar type in one place being represented 'by as decided Tālcher rock elsewhere.'

BOTANY.[1]

Forest trees.

10. The extensive forests of the District contain much teak, but it does not attain to a very great size, and in the scrub jungle of the southern ranges it dwindles to the equivalent of an ordinary shrub. Next to the teak in importance is the *tinsā* (*Ougeinia dalbergioides*) a large and pretty tree with slender grey branches, large oval leaves with grey margins, and small whitish or rose-coloured flowers in short close racemes. The wood is much valued for furniture and agricultural implements. The *sāj* (*Terminalia tomentosa*) a large tree with long, thin, nearly glabrous leaves, the *dhaurā* (*Anogeissus latifolia*), the *haldū* (*Adina cordifolia*), a tall handsome tree, the *lendia* (*Lagerstrœmia parviflora*) which when in bloom is covered with clusters of small white sweet-scented flowers, and the *dhāman* (*Grewia vestita*) are considered good ordinary building woods. The *bījāsāl* (*Pterocarpus Marsupium*), one of the leading timber trees of the Province, is not common in Betūl. The *shīsham* or rosewood (*Dalbergia latifolia*), the *rohan* or

[1] The section on Botany is compiled from notes furnished by Mr. A. Hunt and Mr. Gangā Prasād Khatri, Forest Divisional Officers, supplemented by references to Gamble's Manual of Indian Timbers (London, Sampson Low, Marston 1902), Nairne's Flowering Plants of Western India (London, W. H. Allen) and Roxburgh's Flora Indica (Reprint, Thacker, Spink and Co., Calcutta, 1874).

Indian redwood (*Soymida febrifuga*), the bark of which is much used for tanning and dyeing, the *tendū* (*Diospyros tomentosa*) of which the fruits are eaten, the *sīwan* or Indian music-wood with smooth, white or whitish-grey bark, rather large brown and yellow flowers, and a yellow fleshy fruit, yield ornamental timbers. Other less valuable trees are the *semar* or cotton-tree (*Bombax malabaricum*) tall with smooth white bark and prominent scarlet flowers appearing in March when the tree is leafless; the flower-buds are eaten as a vegetable and the silky fibre obtained from the capsules is used to stuff cushions. The *ganyār* (*Cochlospermum gossypium*) is a small tree with thick spreading branches, glossy green leaves, and large handsome yellow flowers appearing when the tree is quite leafless. It also yields a silk cotton, and derives its second botanical name from this property, while *Cochlospermum* denotes the fact that its seeds are twisted like a snail's shell. The *amaltās* (*Cassia Fistula*) is well known for its drooping racemes of bright yellow fragrant flowers resembling the laburnum. The *padār* (*Stereospermum suaveolens*) is a large tree with panicles of very fragrant dark crimson flowers, useful in sylviculture as it reproduces freely from seed. The *pāngra* (*Erythrina suberosa*) is often seen as a hedge plant but attains a fair size in the forests and has bright scarlet flowers. The trees which come into foliage early in April, when all other species are leafless, and afford a welcome shade from the fierce heat of the sun are especially noticeable to the traveller on this account; these are the *kusum* (*Schleichera trijuga*) with soft green leaves looking like silk from a distance; the *kachnār* (*Bauhinia variegata*) with its handsome variegated white and pink flowers preceding the leaves; the *mahārūkh* (*Ailanthus excelsa*) with pinnate leaves, yellowish flowers and soft white wood; the *siris* (*Albizzia Lebbek*) with sweet-scented greenish yellow flowers; the *kohā* (*Terminalia Arjuna*), a large tree with whitish bark and

1 Called *kāhu* in this District.

narrow leaves, which grows along streams; the *jāmun* (*Eugenia Jambolana*) an evergreen tree with rich green leaves and edible black berries; and the *karanj* (*Pongamia glabra*) another almost evergreen tree, useful for avenues as cattle dislike the leaves. The *khirnī* (*Mimusops hexandra*) is also evergreen with fragrant white flowers and a sweet fruit which is much eaten. Of the above the *kusum*, *kohā*, and *karanj* are perhaps the only ones commonly seen in the forests.

Forest trees (continued).

11. Among other trees yielding useful products are the well-known mahuā, *harrā*, *palās* and *achār*, all of which are common in parts of the District. The *bhilawān* or marking-nut tree (*Semecarpus Anacardium*) is easily recognised by its large leaves and by the fruits with a thick black pericarp, between the layers of which are the cells containing the corrosive juice used as marking-ink. The fleshy hypocarp of the fruit is eaten. The fruit of the *aonlā* (*Phyllanthus Emblica*) is eaten as a preserve. The *jamrāsi* (*Elæodendron Roxburghii*) is a small tree with shining serrate leaves. The root is used as a specific for snake-bite and is poisonous, and the poles are extensively employed in house-building as they are considered to be proof against the attacks of white ants. The *hewar* or *reunjhā* (*Acacia leucophloea*) resembling the *babūl*, but with a dirty greyish-white bark and leaflets somewhat like those of the tamarind, is found both in the forests and open country. Its wood is used for making agricultural implements. The *bhoursāl* (*Hymenodictyon excelsum*) is a large conspicuous tree, especially when leafless but still bearing its panicles of fruit with small winged seeds. The wood is used for plough-shares. The *kakai* (*Flacourtia Ramontchi*) is a small thorny tree which is fairly common. The *dhegan* (*Cordia Macleodii*) has a strong and durable wood which is much esteemed for furniture and agricultural implements. The *kullū* (*Sterculia urens*) is characteristic of the dry hills and has a smooth whitish

papery bark, which makes it especially conspicuous when the tree is leafless, the trunks looking like dead trees. It yields the gum called *katīla* and the seeds are eaten roasted by the Gonds and Korkūs. The *kumhī* (*Careya arborea*) is conspicuous for its large leaves and its flowers white in colour. The bark is used for poisoning fish. The *nirmalī* (*Strychnos potatorum*) is a small tree with a thick bark deeply cleft in a vertical direction and small greenish-yellow flowers. This is the clearing-nut tree, the seeds being used to clear muddy tank water; formerly they were often carried about by officers and soldiers on the march for that purpose. The *anjan* (*Hardwickia binata*) is a graceful tree with small roundish leaflets and a grey bark; the timber is valuable but hard to work. The *hingan* (*Balanites Roxburghii*) is a small tree or shrub characteristic of black cotton soils. It has crooked branches and is easily recognised by its grey bark and ashy green foliage. The nut is used in fire-works. A small hole is drilled in it at which the kernel is extracted, and it is then filled with powder, and being fired, bursts with a loud report, so hard is the nut.[1] *Dīkāmāli* (*Gardenia lucida*) is a small tree with oval, smooth, shining leaves and large white solitary flowers. A yellow strong-smelling gum exudes from the young shoots, which is used in cutaneous diseases and to keep off flies and worms. Of bamboos there are only two species found, the *bāns* (*Dendrocalamus strictus*) and the *katang* (*Bambusa arundinacea*).

Trees of the open country.

12. Among trees of the open country the mahuā, mango, *babūl*, banyan, pīpal, tamarind, *ber nīm* and *bel* are common as in almost all Districts. The *pākar* (*Ficus infectoria*) is a fig with narrower leaves than the pīpal. The *gūlar* (*Ficus glomerata*) is often seen standing alone in the fields and growing with a crooked stem. The red fruits appear in clusters on the trunk or branches and are eaten by the little boys though they are full of insects. The *barnā*

[1] Roxburgh, Flora Indica, page 323.

(*Cratæva religiosa*) is a moderate-sized tree with large, cream-coloured blossoms. It is said sometimes to be planted near Muhammadan tombs. The *bhokar* (*Cordia Myxa*) is a tree found in the open country and in avenues with fragrant white flowers. The *gul mohur* (*Poniciana regia*), is cultivated and is a fine ornamental tree covered with corymbs of glowing scarlet flowers when in bloom. It is a native of Madagascar.

Shrubs.

13. Of shrubs may be mentioned the well-known *Ziyphus Jujuba*, the wild plum; the Gardenias with their prominent sweet-scented white flowers; the *harsinghār* (*Nyctanthes arbor-tristis*) with pretty fragrant white flowers which usually appear at night and fall away a short time after dawn; the *dhāwai* (*Woodfordia floribunda*) an unimposing plant with brick-red flowers; and the *raunī* (*Mallotus philippensis*) from the red berries of which the *kamilā* dye is obtained. The *dudhī* (*Holarrhena antidysenterica*) is a well-known shrub with a stem exuding milky juice and small white fragrant flowers; the bark is used as a febrifuge and as a medicine for dysentery. The *mainphal* (*Randia tomentosa*) is a common thorny shrub used for fencing in the open country; it has smooth, shining, oval leaves and white fragrant flowers turning to yellow as they fade. The *lokhandī* (*Ixora parviflora*) is a shrub or small tree with oblong, blunt leaves; the wood burns well and the branches are carried as torches by the mail-runners. The *gūgal* (*Balsamodendron Mukul*) is a strongly aromatic shrub akin to the Arabian tree from which myrrh is obtained, and also to the tree producing the balsam or balm of Scripture. It is planted to form hedges in some villages on the Berār border, and grows in profusion round the Muktāgiri temples. The *champā* (*Michelia champaka*) is the well-known shrub commonly cultivated round Hindu temples. The pale yellow flowers have the sweet oppressive perfume which is celebrated in the poetry of the Hindus. From the wood of the *champak* the

images of Buddha are carved for the temples.[1] This plant is one of the Magnolias. The Mysore thorn (*Cæsalpinia sepiaria*), vern : *chillāri*, is a very thorny shrub with showy yellow flowers, often planted to make hedges. The seeds are used for weighing gold. It is said to be so called because Tipū planted hedges of it round his fortresses. Another variety with bright orange flowers is cultivated in gardens. *Euphorbia nereifolia* is a thorny shrub growing on dry and stony slopes. Charcoal for gunpowder is made from the wood. It is sometimes called the prickly pear, but the broad-leaved plant commonly known as the prickly pear is a species of *Opuntia* which has been introduced into India. *Bharātī* (*Celastrus Senegalensis*) is a very common and unattractive thorny shrub found wild and in hedges, something like a bramble. *Nirgundī* or *meurī* (*Vitex negundo*) is a very common shrub on roadsides and in hedges with very small panicles of lilac or light-blue flowers and a black berry, the size of a pea. The crushed leaves have a strong and unpleasant smell and are applied for headache. The *bhosā* (*Bauhinia racemosa*) is a small, bushy and very crooked tree with small two-lobed leaves looking like butterfly's wings, and yellow flowers. It is conspicuous in the cold season, Gamble says, for its persistent fruit. The Marāthās distribute the leaves of this tree to each other on Dasahra day as a symbol of gold, because Ceylon, which Rāma conquered on Dasahra, was built of gold and also because the Marāthā marauding expeditions started on Dasahrā.

Creepers and parasites.

14. The following are some of the commoner creepers. *Māhul* (*Bauhinia Vahlii*) is a gigantic heavy climber with soft pale yellow flowers. The large fat pods are roasted and the seeds extracted and eaten; and the leaves are used for leaf-plates. The *belā palās* (*Butea superba*) is a large climber with leaves and flowers resembling those of the *palās* tree ; the flowers

[1] Tennant's Ceylon quoted in Nairne's Flowering Plants of Western India, p. 7.

being of a gorgeous orange colour. *Waghāti* (*Capparis horrida*) is a climber often seen growing in hedges, with large flowers white and afterwards pink in colour, and presenting a striking appearance. *Churni* (*Zizyphus Oenoplia*) is a climber akin to the wild plum tree and bearing similar fruit. It prefers open bushy places and is covered with small but very strong thorns, difficult to cut and troublesome to passers-by along the roads. It is much used for making fences for fields (Gamble). *Gunjā* (*Abrus precatorius*) is a common climber in hedges, with numerous leaflets and pale flowers in crowded racemes. It has round scarlet seeds with black spots, or sometimes nearly white ones, which are used as weights by goldsmiths, each seed being said to weigh 1¾ grains. The seeds are also used to make necklaces and earrings. The open pods of the plant showing the scarlet and black seeds are very conspicuous and ornamental. The *mārbod* (*Asparagus racemosus*) is a delicate smooth climber with thorns turned downwards, and branchlets divided into very smooth segments so as to give the appearance of a mass of long slender thorns. It has small white fragrant flowers in racemes and red berries. This pretty climber is a near relation of the cultivated asparagus. The people bring home branches of it on the Polā festival and with them sweep the walls and floors of their houses to clear out all insects and purify the house. The climber called *baichāndi* is said by Mr. Gangā Prasād, Forest Divisional Officer, to be *Smilax lanceæfolia*, the tuberous roots of which are an important product as being eaten by the forest tribes, who also collect them and sell them in the bazar. The best-known parasite is *bandā* (*Loranthus longiflorus*) which always attracts notice owing to the brightness of its foliage and the greenish-red flowers. Nairne says it resembles the honey-suckle. It grows on many trees but in Betūl particularly infests the mahuā, to which it is causing considerable injury. The *amarbel* (*Cuscuta reflexa*) may often be seen with its countless greenish-yellow wire-like stems bare of leaves, and

spreading over a small tree or bush which it strangles. And there is also a species of *viscum*, a small greenish-yellow parasite, a kindred plant to the English mistletoe.

WILD ANIMALS AND BIRDS.

[1] Wild animals and birds.

15. The forests of the District are fairly well stocked with game. Bison are found in the Saolīgarh, Bhanwargarh and Asīr ranges, but their numbers have considerably decreased in recent years. Tigers generally frequent the forests bordering the larger rivers. Man-eating tigers are very seldom heard of, and owing to the extent of the forests and the supply of forest game they are less destructive to cattle than elsewhere. The number of tigers is also said to have declined. Panther are fairly numerous, both the large and small varieties being found, and are more dangerous both to cattle and human beings than tiger. Hyænas are very common, constantly prowling round villages at night and have been known to carry off goats and sheep. Wild dog are less numerous and their ravages consequently less severe in Betūl than in other Districts. Bears are found all over the District and have been known not infrequently to attack human beings. The flying squirrel is said to be found though it is rare. The common varieties of deer belonging to the Province are found in fairly large numbers in the forests. *Nīlgai* frequent the more open forests and grass glades. Black-buck wander in herds over the wheat fields of the south and the downs of the plateau, but the heads are generally smaller than in the Vindhyan Districts. Wild pig are common and destructive to the crops. Of birds, the common sandgrouse is fairly plentiful all over the District and is indigenous. Jungle-fowl are found in denser forest and beside streams in the early morning and on hot-weather afternoons. Spur-fowl haunt bamboo jungle and thick forest, but are not common. The grey partridge is

[1] This paragraph is taken from a note by Mr. A. Hunt, Divisional Forest Officer.

very common and the painted partridge is found in smaller numbers. The bush-quail, rain-quail and button-quail are very common and the large grey quail may be flushed in the cold season in open grass country or in fields under crop. Green pigeon are found in large flocks on banyan and pīpal trees when the fruits are ripening. Wood-pigeon are not common but may be seen in pairs by forest streams. The blue-rock pigeon does not occur in large numbers and builds his nest in high and inaccessible rock crevices or in the hollow branch of a tree. Owing to the absence of tanks duck and snipe are very rare and the District is on the whole not a good one for bird-shooting.

RAINFALL AND CLIMATE.

Rainfall statistics.

16. Rainfall is registered at the four stations of Badnūr, Shāhpur, Chicholī and Multai. The first-named town is situated near the centre of the District, and as it stands in a small basin surrounded by low hills, which favour the local formation of storm clouds, the fall is heavier there than elsewhere. Multai lies to the east in the centre of the trap plateau, and the bare and level nature of the surrounding plain probably accounts for the fact that the rainfall here is substantially less than at the other stations, the difference being five or six inches. The average rainfall of the District for the 39 years ending 1905-06 was 41 inches, but the returns for other stations than Badnūr are of doubtful reliability previous to 1891. The recent dry seasons have produced a noticeable decline in the general average fall. It is nearly 44 inches at Badnūr and about 36 at Multai, while Shāhpur has the same fall as Badnūr, and Chicholī about two inches less. During the period of 39 years the highest rainfall was received in 1867-68 when 64 inches fell, and the lowest in 1899-00 when only 14 inches were recorded. At Badnūr the total in this year was only 11 inches. The driest year next to this was 1868-69 when 21 inches were received. In 21 out of 39 years the annual quantity recorded was under

40 inches and in 8 years it exceeded 50 inches. About 43 inches are received during the five wet months from June to October and about 3 inches during the seven dry months.

Influence of rainfall on agriculture.

17. A heavy fall in April or May may damage the crop on the threshing floor, but this rarely occurs. [1] The total quantity of the year's fall is of much less importance than the manner in which it is distributed. With 10 inches less than the average fall, excellent crops may be reaped if the distribution is favourable, while a considerable extra quantity of rain will not make up for unseasonable distribution. The ideal year for the cultivator would show about 40 inches of rain distributed as follows. Heavy rain should be received for a few days about the middle of June, and be followed by a short break, which should be succeeded again by steady rainy weather until the middle of August to provide for the successful sowing and germination of the rain crops. A break of ten days at this time is of advantage to enable the cultivators to cut the early kutkī and to sow *jagnī* and late kutkī and also for the weeding of the other autumn crops Rainy weather with occasional breaks of sunshine till the end of the first week of October will then ensure the success of the rain crops, and afford the necessary opportunity for preparing black soil for the spring sowings. It is desirable that there should be at least two or three heavy downpours during the course of the monsoon, as they benefit the sugarcane much more than continuous gentle rain and the wells appear to fill better than with a steady fall of moderate intensity. A few showers at the end of October and beginning of November and about Christmas time will furnish all the rain needed by the spring crops. The worst disaster that can befall the crops short of a complete and continuous failure of the monsoon is the absence of September and October rain, but this has rarely happened until within recent years, as although the late monsoon is very variable, short rain in

[1] Settlement Report (1901), paras 41-42.

September has usually been compensated for by a good fall in October. Excessive rain in the cold weather months is more common and has led to the wheat crop being attacked by rust in several years. While the absence of cold weather rains and the consequent impaired outturn of the spring crops is perhaps the most frequent misfortune of all. But if the monsoon has continued into October and the weather is cool and clear with abundant dew, the want of rain may scarcely be felt. But the cold weather rains are of great importance for ensuring a sufficient supply of water in the wells. If the monsoon is very heavy and continuous, the cultivators may not have opportunity to plough their *rabī* lands and the seed may have to be sown in fields full of weeds. Besides excessive or deficient rainfall, cloudy weather in the winter months and frost not infrequently cause injury to the crops. Even without rain a few days of cloudy weather when the spring pulses are in flower will do much harm by shrivelling up the flowers before they have had time to be fertilised. Frost ruins the arhar, masūr and gram crops, and if severe may cause injury to wheat.

Climate.

18. The District has no observatory. The climate, at least to Europeans, is highly salubrious; its height above the plains and the neighbourhood of extensive forests moderate the excessive heat of the sun, and render the temperature pleasant throughout the greater part of the year. During the cold weather the thermometer at night continually records several degrees of frost in the ground temperature though not in that of the air. Little or no hot wind is felt before the end of April and it ceases after sunset; the nights in the hot season are invariably cool and pleasant. During the monsoon the climate is sometimes warm and steamy and at others even cold and raw, thick clouds and mist enveloping the sky for many days together. The District is healthy except from August to November when malarial fever is prevalent.

CHAPTER II.

HISTORY AND ARCHÆOLOGY.

HISTORY.

Early History. Gondwāna.

19. The District has scarcely any remains of sufficient antiquity to throw light on its early history. It no doubt, however, formed part of the ancient territory of Gondwāna, the name given by the Muhammadans to the country of the Gonds, and embracing the bulk of the present Sātpurā plateau. As early as the time of Ptolemy (130-161 A.D.) the large district at the head of the Nanaguna or Tāpti river was occupied by the Kondali, a name which has been generally identified with that of the Gonds. The name of the Gonds has been derived by General Cunningham from Gaur, the classical term for part of the United Provinces and Bengal. The kings of western Gaur are mentioned several times in early inscriptions and their territory is supposed to have embraced the Sātpurā plateau. One Gupta, king of Gaur, is recorded to have defeated and killed the king of Kanauj who was invading Mālwā with 10,000 horse in A.D. 606. About 780 the Rāshtrakūta Rājā of Berār invaded Maru or Ujjain, the country of Vatsarāj who was intoxicated with 'the wealth of the king of Gaur.' It appears from this passage that a part of the Gondwāna kingdom was conquered by Mālwā at an early period of history. Subsequently the District may have been included in the territories of the Rāshtrakūta kings who had their capital at Mālkhed in Hyderābād, while their dominions extended from the Vindhya mountains and Mālwā on the north to Kānchi on the south. Copper-plate grants belonging to this dynasty have been found at Multai in Betūl and at Deolī in Wardhā. The Multai plate is dated 709 A.D. and is in the possession of some Gosains who reside there. It announces the grant of a village Jalaukuhe, which has not yet been identified, to a

Brāhman, by Nandrāj of the Rāshtrakūta line. It is thus probable that the Multai plateau was in the possession of the Rāshtrakūta kings, whose supremacy lasted from 750 to 950 A.D. and who have been supposed to be Rāthor Rājputs. It was during their predominance that the Kailās temple at Ellorā was built.

The Kherlā dynasty. Mukund Rāj Swāmi.

20. The next mention of Betūl is contained in a religious work called the Vivek Sindhu written by one Mukund Rāj Swāmi, a religious ascetic who lived about the end of the 13th century A.D.[1] This book is said to be the earliest work in the Marāthī language. In Mukund Rāj's time a king of the name of Jaitpāl was ruling in Kherlā and the saint passed the latter years of his life under Jaitpāl's patronage. According to the book this king was the last member of a Rājput dynasty which had ruled in Kherlā. Jaitpāl is also said to have been descended from Rājā II, a legendary personage, who is believed to have given his name to the Ellorā caves and to Ellichpur in Berār. This is the only reference to the early Kherlā dynasty and it is impossible to determine who the kings were, but it seems likely that they were the ancestors of the Narsingh Rai who is found at Kherlā in the next century. Mukund Rāj Swāmi is still remembered locally and his tomb is to be seen within the precincts of the fort. A temple has been erected over it and it is an object of pilgrimage, children being sometimes brought to it to have their hair cut for the first time. Various stories are also related about the saint. It is said that Rājā Jaitpāl used to oppress the holy men by asking them to make the deity visible to him in as little time as is necessary for a man to put his foot in the stirrup and mount his

[1] A Marāthā periodical, the Granth Mālā, published in Kolhāpur (No. 128 of November 1904), gives the date of Mukund Rāj's death at 1330 or 1335 A.D. A Marāthī collection of poems called 'Navanīt' found in school libraries puts it about 1,000 A.D. as stated by Mr. Standen, but the former date is more probably correct as the earliest Marāthī writers whose works have come down to us flourished at the end of the 13th century (India Census Report, 1901, page 315).

horse. When they could not do this he forced them to labour as coolies on the Kherlā fortifications. Mukund Rāj, who belonged to Benāres, heard of this and came to Kherlā to remedy the evil, where he found about three hundred Sādhus working. He touched the pickaxes and crowbars and they went on working of themselves. When Rājā Jaitpāl heard of this miracle he came to Mukund Rāj and asked him the usual question. Mukund Rāj asked the Rājā to mount his horse, and as he put his foot in the stirrup the deity appeared to the king and he was struck senseless. After this manifestation Jaitpāl conceived a great reverence for Mukund Rāj and kept him under his patronage at Kherlā. Tradition further states that after Mukund Rāj's death Kherlā was besieged by the General Rahmān Shāh Dullah of a Muhammadan king of Delhi, in revenge for the death of a *fakīr* at the hands of Jaitpāl. Various stories are current in the District regarding the long investment of the fort and it is said that the Rājā did not yield till after a twelve years' siege. The Muhammadan general was killed in the last assault and his head is buried in a tomb at Umrī immediately below the fort, while his body lies at Ellichpur in Berār. This separation is accounted for by the story that Rahmān Shāh Dullah cut off his head and offered it to the goddess Devī as an offering for victory, on which his headless corpse pursued the enemy from Kherlā to the banks of the Tāpti. The tombs are objects of pilgrimage and two villages are held free of revenue for the support of the shrine at Umrī.

Explanation of the local tradition.

21. It is probable as suggested by Sir C. Grant [1] that the local story really relates to the Bahmani invasion shortly to be described, when the Muhammadan general was murdered by the Rājputs of the Kherlā garrison after it had capitulated. The fact that he was buried at Ellichpur militates strongly against the supposition that he was a general of the king of Delhi. In this case the siege really

[1] C. P. Gazetteer, 1870. Introduction, page xxv, footnote.

took place in 1467 and the garrison invested belonged to the king of Mālwā. It is improbable that an invasion of Kherlā by the troops of the Khilji kings of Delhi would have occurred without any record of it remaining other than the traditions of the people. And about fifty years after the probable date of Mukund Rāj Swāmi's death we find the Kherlā dynasty in the most flourishing condition, which would hardly be the case if the story of the Muhammadan conquest was correct.

The Kherlā dynasty mentioned by Firishta.

22. The next mention of Kherlā is found in the writings of the Persian historian Firishta, excellently translated by Colonel Briggs, who states that Narsingh Rai Rājā of Kherlā had great wealth and power, being possessed of all the hills of Gondwāna and other countries.[1] This Narsingh Rai is usually considered to have been a Gond, though Firishta gives no information as to his caste or race, while, on the other hand, Jaitpāl, to whose dynasty he apparently belonged, is spoken of as a Rājput. It may be the case that Kherlā like Mandlā was the seat of a Gond-Rājput dynasty. In 1398 A.D. Narsingh Rai was induced by the Muhammadan kings of Mālwā and Khāndesh to commence hostilities against the *Bahmani king* of Gulbargā near Sholāpur, whose territories included Berār. The Bahmani kingdom was established in 1357 and was so called because the founder of the line, elected after the revolt from Muhammad Tughlak, was either a Brāhman or a Brāhman's servant.[2] The dynasty, however, was Muhammadan. The Rājā of Kherlā invaded the province of Berār and devastated the Muhammadan territory to the walls of Māhur. The Bahmani king Firoz Shāh was at this time at war with the king of Vijayanagar, so he could only detach a division of his troops to oppose Narsingh Rai. A few months afterwards, however, he marched in person to punish him. Firishta

[1] Briggs' Firishta II, pp. 370—376.

[2] Elphinstone's History of India, p. 755.

continues[1]: 'Nārsingh Rai sent rich presents to the kings of 'Mālwā and Khāndesh, entreating their assistance; but 'though they had on former occasions furnished him with aid, 'yet, as they in reality wished his destruction, they now 'declined joining his cause. Notwithstanding this circum-'stance, Narsingh Rai resolved to engage the king, and 'marching two *kos* from Kherlā, assembled his troops and 'waited for his approach. Fīroz Shāh was anxious to lead the 'army in person, but two of his generals having requested 'to be allowed to conduct the enterprise he gave his consent. 'They opened the war by addressing a letter to Narsingh Rai, 'reminding him of his late conduct and advising him to compro-'mise matters by consenting to pay tribute; but his reply was 'couched in threats of defiance and he made greater preparat-'tions for war. The Bahmani generals, now advancing, attack-'ed his lines, which brought on a severe conflict in which many 'Muhammadan officers of rank suffered martyrdom, and the 'infidels charging furiously, the troops of Islām were broken. 'At this instant the Bahmani general, advancing with two 'hundred horse, caused the drum of victory to be beaten, giv-'ing out that the king was coming to their assistance. The 'troops on this information rallied and repulsed the enemy 'and now in their turn attacking the Hindus, the Muhammad-'dans put them to flight and took prisoner Gopāl Rai, the 'son of Narsingh Rai. The fugitives were closely pursued 'to Kherlā, leaving upwards of ten thousand slain upon the 'field, while Narsingh Rai having with much difficulty gained 'the fortress was besieged by the victorious army. At the 'end of two months the garrison, being reduced to great 'distress offered terms, but were told that they must surren-'der unconditionally. Narsingh Rai seeing no other alter-'native then went with his family to the king's camp at 'Ellichpur, where he expressed contrition for his conduct 'and acknowledging himself the king's vassal, hoped that his 'majesty would admit him among the number of his tribu-

[2] Page 376. The passage has been slightly abridged in reproduction.

'taries and overlook past events. Firoz Shāh, becoming 'reconciled to Narsingh Rai, gave him a dress of honour 'richly embroidered with gold; and receiving one of his 'daughters into his own harem, together with a present of 'forty-five elephants, a considerable sum of money and 'other valuables, he directed the siege of Kherlā to be 'discontinued.'

Invasion by the Mālwā kings.

23. After this Kherlā remained tranquil for a long period; but about 1425 Hoshang Shāh, the king of Mālwā, being apprehensive of the increasing power of Ahmad Shāh Bahmani, the successor of Firoz Shāh, made proposals to Narsingh Rai of Kherlā to combine with him against the Bahmani monarch. Firishta continues[1]: 'The Rājā not 'acceding to his proposal, Sultān Hoshang twice invaded his 'country but was repulsed with severe loss. In a third attack, 'however, he came so unexpectedly on Narsingh Rai that, 'unable to collect his troops, he was obliged to remain within 'his fortress. On which occasion in the year 1426, Nar-'singh Rai petitioned Ahmad Shāh for assistance; observ-'ing that from the day of his having submitted to become 'tributary to Firoz Shāh Bahmani, he had not deviated from 'the path of obedience; that he was considered by all the 'neighbouring states as tributary to his house; on which 'account he trusted the king would not refuse his aid 'on the present occasion. Ahmad Shāh, accordingly, 'directed Khān Jahān, governor of Berār, to march to 'the succour of Narsingh Rai, and himself moved with 'seven thousand horse to Ellichpur to be ready if necessary 'to support him. Sultān Hoshang Shāh of Mālwā, supposing 'that the king's absence from his army arose out of fear, 'advanced to Kherlā, and plundering the surrounding coun-'try, was pleased to throw out taunting allusions on the 'subject of Ahmad Shāh's inactivity; in consequence of 'which the latter marched rapidly to relieve Kherlā. At this

[1] Briggs' Firishta, Vol. II, p. 407.

'time, some holy men represented to Ahmad Shāh that none 'of his ancestors had ever assisted infidels against true 'believers ; that it was contrary to the doctrines of the faith 'to do so and should be avoided. The king, though within 'forty miles of the enemy's camp, was forcibly struck with 'these remonstrances, and immediately halted, writing at the 'same time to Sultān Hoshang, that Narsingh Rai being one 'of his dependents, it would be the means of promoting 'mutual friendship, if Sultān Hoshang should desist from 'attacking him and return to his own country. He also 'observed that, in consequence of the remonstrances of the 'holy men about his person, he was about to proceed to his 'own capital ; and he began his retreat before the messenger 'had even arrived in the enemy's camp. Sultān Hoshang 'treated with contempt the communication of Ahmad 'Shāh ; and, aware of his own superiority in numerical 'strength, followed him so closely that he encamped daily on 'the ground that the Deccanis had left in the morning. Ahmad 'Shāh, roused by this conduct, told the holy men that he 'thought he had already sufficiently shown his desire to regard 'the doctrines of the faith. Accordingly, having ordered his 'baggage to precede the army, he halted and drew up his army '*for battle, while he himself with two thousand chosen horse* 'and twelve war elephants, took post in ambush to wait for 'the enemy.

Defeat of Mālwā by the Bahmani king.

24. 'Sultān Hoshang, unaware of these preparations 'and being as yet unopposed, concluded 'the Deccanis were still flying before 'him; he therefore advanced without 'any regard to order. and came up suddenly with the enemy. 'Having no time to form his troops, he charged in a confused 'manner with 17,000 men. When the two armies were 'engaged, Ahmad Shāh attacked him from the position wherein 'he was concealed, and with his elephants and two thousand 'men fell on the rear of the Mālwā army, which, con-'founded between two attacks, was panic-struck and fled with

'precipitation. The Deccanis pursued and slew about two 'thousand of the enemy, and took all their baggage. Two 'hundred elephants, together with the women composing the 'harem of Sultān Hoshang, also fell into the king's hands. 'Narsingh Rai, hearing of the defeat of the Mālwites, quitted 'his fortress, and intercepted them on their return through his 'country, and killed great numbers. Ahmad Shāh, though vic-'torious, lamented the necessity of his attacking the Muham-'madans; but having conferred handsome presents on the 'females and children of Sultān Hoshang's family, sent them 'to Mālwā without demanding a ransom, escorted by some 'persons of rank and confidential eunuchs. Narsingh Rai 'came to pay his respects and congratulate the king, 'accompanied by his sons; and having prevailed on him 'to visit Kherlā, entertained him sumptuously, and made rich 'offerings, among which were many valuable diamonds, rubies 'and pearls. On his return he attended the king as far as 'Māhur, from whence he took leave, after having received 'honorary dresses and other marks of the royal favour. It is 'written in the history of Mālwā that another battle happened 'between these two monarchs, on account of Narsingh Rai's 'calling Sultān Hoshang to his assistance when Ahmad Shāh 'besieged Kherlā; but as the writers of the Deccan do not 'record it, God only knows the truth.'

End of the Kherlā dynasty.

25. There appears, however, to be no reason to suppose that Narsingh Rai was faithless to the Bahmani king, and his continued adherence to the interests of his suzerain furnishes a pleasing contrast to the ordinary behaviour of Indian princes. Firishta himself states shortly afterwards that the occasion for Hoshang Shāh's next invasion was furnished by a war between Ahmad Shāh Bahmani and the king of Gujarāt, which preoccupied the former's energies and prevented him from advancing to Narsingh Rai's assistance. Taking advantage of this, in 1433 Hoshang Shāh again invaded the country of Narsingh Rai and slew him in

battle. He also reduced the fort of Kherlā and its dependent territory. On receiving intimation of these events, Ahmad Shāh Bahmani marched towards the Mālwā army, but Nāsir Khān Farukhī, ruler of Khāndesh, interfered and induced the two kings to forego hostilities; and after some negotiation it was resolved that the fort of Kherlā should belong to Hoshang Shāh and the province of Berār to Ahmad Shāh Bahmani. Thus ended the dynasty of Narsingh Rai, which may be supposed in the absence of any definite record to have been founded by a Rājput adventurer marrying a Gond princess. There are now no means of arriving at a comprehension of the extent, prosperity or method of government of the Kherlā state. But it is clear from the extracts quoted that it must have been in existence for some considerable period and have attained a fairly large measure of wealth and power. Sir Alfred Lyall says of it: 'It may be granted that Narsingh Rai and his 'caterans lived by plundering the lowlands like their Scottish 'contemporaries, and must have been very troublesome neigh-'bours. Yet in those days the main object of all governments 'was rapine and conquest, with a difference only in the scale 'of operations; and there is something pitiful in the fate of 'these petty tribal chiefs who disappeared under the conquer-'ing sweep of the Pathān adventurer's scimitar.'[1]

The Mālwā kingdom.

26. The Muhammadan kingdom of Mālwā in which Betūl was now included had only been in existence a few years, having recently asserted its independence against the Tughlak dynasty of Delhi. Indeed Elphinstone[2] gives the date of the first king's accession as 1401 A.D. or three years after the first mention of a king of Mālwā by Firishta, while the date of the accession of Hoshang Shāh, the second king, is shown as 1405. This slight discrepancy need not trouble us, however, as the governors of outlying territories were often so nearly independent during the unsettled times of the Tughlak dynasty that they may well have been spoken of as kings. Mālwā was

[1] Berar Gazetteer, p. 114.

[2] History Appendix, p. 768.

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ruled by a line of Afghān princes who were called Ghorī because they came from the mountainous country of Ghor to the east of Herāt. Their capital was at Māndu on the crest of the Vindhyan range, 'remarkable for its situation on a rich 'tableland of thirty-seven miles circumference surrounded by 'rocky precipices, and also for the magnificence of its build-'ings.'[1] The Mālwā dynasty lasted only for something over a century and in 1531 its territories were annexed to the Muhammadan kingdom of Gujarāt, with which Mālwā had been constantly at war. The most remarkable fact about the dynasty is that towards the end of its existence a Rājput adventurer became principal minister and filled all the offices with Rājputs under a Muhammadan king, while from the first period of its establishment the army was largely composed of Rājputs. Sultān Hoshang Shāh Ghorī gave his name to the town of Hoshangābād.

Last invasion of Kherlā by the Bahmani kings.

27. Kherlā was to be the scene of yet another conflict between the Mālwā and Bahmani kings. In 1467 Muhammad Shāh Bahmani, on terminating his minority in his fourteenth year, immediately embarked on schemes of conquest, and commanded Nizām-ul-Mulk, governor of Berār, to proceed with a powerful army against the fortress of Kherlā, still in possession of the kings of Mālwā. This was not an act of unprovoked aggression, however, as a few years previously the king of Mālwā had invaded the Bahmani territories and taken Ahmadābād; but had been forced to retreat and, trusting to a Gond chief to guide him through the hills to Mālwā, had been purposely misled and had lost the greater part of his army from want of water in the Nimār forests. The investment of Kherlā is described by Firishta[2] as follows: 'Nizām-ul-Mulk laid siege to Kherlā and several times 'defeated the reinforcements sent to relieve it. On the last 'occasion a very obstinate engagement occurred, in which

[1] Malcolm, Memoir of Central India, Vol. I, pp. 29, 40.

[2] Brigg's Firishta, Vol. II, p. 479.

'12,000 Rājputs and Afghāns fought desperately in the 'Mālwā army and great numbers were slain on both sides; 'victory, however, in the end declared in favour of the Dec-'canis, who, pursuing a part of the garrison into the fort 'from whence they had rallied, entered the gates with the 'fugitives, and obtained possession of the place. According 'to the custom of the common soldiers of the Deccan, the 'victors gave abusive language to the conquered garrison, 'which so enraged two Rājput brothers, that they resolved to 'prove to the enemy that they were not deficient at all events 'in courage. When the confusion was over and the Mālwites 'had evacuated the fort, the two Rājputs addressed Nizām-ul-'Mulk's attendants, saying that though they had passed their 'whole lives in the army and seen many brave men, they had 'beheld none equal to him, and they solicited permission to 'kiss his feet before they departed. Nizām-ul-Mulk, observing 'they were unarmed, ordered them to approach, upon which 'they came up in a submissive manner; but turning suddenly 'and snatching the sabres from the hands of the nearest 'guards, one of them inflicted a mortal wound on Nizām-ul-'Mulk, after which they defended themselves desperately till 'they were both hewn in pieces.' The governor's adopted brothers established a strong garrison in the fort and marched back to Berār with a large booty, taking his body with them. Subsequent negotiations, however, led to the restoration of Kherlā to the Mālwā king and the conclusion of a lasting peace between the two states. There can be little doubt that the story current in the District refers to this event, the fact of the general's body being buried at Ellichpur making it most improbable that he commanded the army of the king of Delhi. The real name of the governor who was killed cannot be ascertained from Firishta, who always refers to him by his title of Nizām-ul-Mulk. But the coincidences of the long siege and the governor being killed at the end of it, though not actually in the last assault, makes it more than probable that the local tradition refers to this event.

During the supremacy of the Mālwā kings, Kherlā was apparently in charge of a Muhammadan governor, nothing more being heard of the line of Gond-Rājput princes. An inscription on a piece of sandstone in the village of Somāripet close to Kherlā states that 'During the rule of Hazrat Nizām Shāh 'this inscription was graven by order of the king.' None of the kings of Mālwā bore the name of Nizām Shāh, which may therefore have been that of a subordinate governor. The inscription is in Hindī and Persian and has no date.

Incorporation of the District in the Mughal Empire.

28. In 1560 Mālwā, which had never been thoroughly absorbed by Gujarāt, was occupied by Akbar. But whether Kherlā was incorporated in the Mughal empire immediately or at some subsequent date is not known. The latter is, perhaps, the more probable hypothesis, as it was included in the Sūbah of Berār which was founded about 1596 or very shortly after the conquest of Berār. Kherlā was the headquarters of a Sarkār or district subordinate to the Subāh or province of Ellichpur, and the Kherlā Sarkār included 35 parganas embracing the centre and the south of Betūl District, and some tracts of Chhindwāra and Wardhā.[1] The north of the District was probably covered with forest and only nominally under the control of the Mughal officers. To the east of the Kherlā Sarkār lay the territories of a zamīndār named Chātwā,[2] who was possessed of 2000 cavalry, 50,000 foot and more than 100 elephants. This was probably the Jātbā who was the first remembered Gond king of Deogarh in Chhindwāra. The revenue of twelve parganas mainly situated in the Multai and open parts of the Betūl tahsīls is recorded as more than $17\frac{1}{2}$ million *dāms*. Forty *dāms* went to the rupee, so that this would be equivalent to nearly $4\frac{1}{2}$ lakhs, or, as Hunter takes 10 Mughal rupees to the sovereign, to more than 6 lakhs of the present currency.

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[1] Jarrett's Ain-i-Akbarī, Vol. II, p. 233.

[2] In a footnote Jātibā or Jātwā. Jarrett's Ain-i-Akbarī, Vol. II, p. 229.

The Bhonsla kingdom. The annexation.

29. On the decline of the Mughal empire, Bakht Buland, the Rājā of Deogarh in Chhindwāra, extended his jurisdiction over Beṭūl, which subsequently passed with the rest of the Deogarh territories to Raghujī Bhonsla in 1743, Burhān Shāh, the dispossessed Gond king, being allowed to retain for some time a nominal authority over the districts on the plateau. During the quarrel between Burhān Shāh and his brother which led to Raghujī's intervention the Gonds rose in rebellion and plundered the country for a year. Mr. Standen describes this period of turbulence as follows:—'Until the country fell under our rule, the Gonds 'had a very bad name as robbers and marauders of a daring 'type. They used frequently, it is said, to make a dash into 'the rich country of the Berārs or the Nerbudda valley, and 'after looting and killing all night return straight across 'country to their jungle fortresses, guided by the light of a 'bonfire on some commanding peak. Besides the fort of 'Kherlā they built a number of strongholds on the most in-'accessible hills in the jungle. Most of these have now 'crumbled away, but at half a dozen places the ruins are still 'to be seen. Nor were they the only robbers in the '*District. A Muhammadan by name Sher Shāh, said to have 'been originally a religious fanatic, established himself* at '*Borgaon on the Wardhā river and levied tribute* from the 'neighbouring rich country in what is now the south of the 'Multai tahsīl. His son became eventually such a scourge 'to the country that the Rājā of Nāgpur sent an army against 'him, and after taking his castle deported the inhabitants of the 'village which had grown up under the walls to Multai, thus 'supplying the nucleus of the little town which now exists.' 'The Pindāris under Gafūr Khān also passed through the 'Multai tahsīl more than once and bands of Thags frequently 'traversed the District on their way to the rich villages of the

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1 Multai, however, was not first founded on this occasion as it is mentioned in the Ain-i-Akbarī.

'Nāgpur country and the Nizām's dominions.[1]' On the annexation of the District by the Bhonslas the capital was removed to Betūl and the fort at Kherlā was destroyed, the inhabitants of the neighbourhood being encouraged to remove the cut stones from it to build their own houses. Betūl with the Nāgpur territories north of the Nerbudda was made over to the British in 1818 after the battle of Sītābaldī and in 1826 it was formally included within our dominions by treaty.

Operations after the flight of Appa Sāhib.

30. After the action of Sītābaldī, Appa Sāhib, the Bhonsla Rājā, was reinstated on the throne, but on fresh intrigues being discovered was deposed and forwarded to Allahābād in custody. On the way he escaped from his guards and fled to the Pachmarhī hills where he was joined by a number of Gond chiefs and Chītū Pindāri, and with their assistance attempted to gain possession of the open parts of the Sātpurā plateau. Some minor operations were at this time undertaken in Betūl[2]. In June 1818 a body of Arabs entered the District from Melghāt and proceeded to levy contributions. Betūl was at this time garrisoned by a detachment of the 10th Bengal Infantry commanded by Captain Sparkes. He proceeded against the marauders and on crossing the Tāpti near Bheran was attacked and surrounded by a superior force. The party took up a position on high ground and defended themselves so long as their ammunition lasted, when they were destroyed with the exception of a *naik* and eight sepoys. On receipt of the intelligence of this disaster fresh troops were sent to the District, advancing from Hoshangābād through Shāhpur and from Nāgpur to Chhindwāra and Pāndhurnā. A post of 30 sepoys left behind to hold Shāhpur was also cut up, and a force of three companies of infantry and two guns was prevented from ascending the passes until further reinforced. The enemy had seized

1 Settlement Report (1901), p. 5.

2 The description of the events in 1818 and 1819 is taken from Colonel Valentine Blacker's Memoir of Operations during the Marāthā Wars of 1817, 1818 and 1819.

Multai and the British troops proceeded there and dispersed a force of 300 cavalry outside the village. They were too few in number, however, to attempt either an assault or investment pending the arrival of the Pāndhurnā detachment. But in the meantime the enemy of their own accord evacuated the village and fled to the north. They were pursued by the cavalry and one section was overtaken on the Bel river and 171 killed, while another was dispersed with the loss of 50 men twelve miles north of Multai. A detachment of a squadron of cavalry and two companies of infantry was subsequently sent against Amlā, which was held by 500 of the enemy. Colonel Blacker[1] describes the position as follows: 'This *garhī*, contemptible as a place of strength owing to 'the dilapidated state of its walls, was, however, situated 'between two deep *nullahs*. These suddenly beginning to fill, 'as soon as the detachment crossed, Captain Jones, the commanding officer, was apprehensive of being cut off from his 'baggage before he had completed the projected service. He 'therefore preferred to recross the *nullah* and encamp out of 'reach of the fire of the garrison, rather than to attempt an 'assault by a *coup de main*, and accordingly remained inactive 'throughout the remainder of the day. During the night, 'however, the enemy lost confidence, knowing the weakness 'of their position. They also, probably, imagined that additional force was coming against them; for they evacuated 'Amlā before daybreak, when the place was peaceably occupied by the British troops.' Another party of the enemy was surrounded and cut up at Bordehi losing about 300. These events occurred in July and August 1818. Meanwhile Appa Sāhib's adherents had been everywhere defeated and driven out of their positions in Narsinghpur and Bhandāra, and the position of that chief became desperate. A double line of posts chiefly of irregular horse extended for the purpose of intercepting stragglers from the Waingangā below the Ghāts to the Māchna above, and British forces

occupied the open country on all sides of the Pachmarhī hills. On the 1st February 1819 Appa Sāhib, perceiving that his position was untenable, left Pachmarhī, after first robbing his friends the Gonds of all their valuables. He passed Bordehī accompanied by Chītū Pindāri with 500 Arabs and native soldiers, and managed to break through the British posts, the officer in charge being induced by false information supplied by the *amildār* or native civil official to march towards Shāhpur, in the belief that Appa Sāhib had gone that way. The party reached Saolīgarh in Betūl and after remaining there for a short time tried to make their way to Asīrgarh in Nimār. They were intercepted, however, by a British picket and Appa Sāhib made his escape with considerable difficulty by dashing his horse into a deep ravine, while his party dispersed and fled in every direction, pursued by the picket until darkness rendered further exertion unavailing. Appa Sāhib subsequently escaped to the Punjab and the disturbances came to an end.

The Mutiny. Tantia Topi's excursion through Multai.

31. During the Mutiny the tranquillity of the District was scarcely disturbed. One or two of the local proprietors were suspected of disaffection, but no rising took place. In October 1858 Tantia Topi crossed the Nerbudda at Fatehpur and marched to Multai with the intention of making his way to the recently annexed Nāgpur country and inciting the Marāthās to revolt. Much apprehension was excited by this march and Colonel Malleson[1] considers that if it had happened twelve months earlier the Mutiny might have extended over the whole of Western India. As it was the people showed no inclination whatever to join Tantia or even to afford him the assistance in the nature of supplies which was readily given in Rājputāna. At Multai Tantia found that the roads to the plains were in the possession of British forces and he was compelled to turn westward and proceed by Atner and Bhainsdehī into Nimār. A military force was quartered

[1] Indian Mutiny, Vol. III, p. 343.

at Betūl till 1862 and it was for a short period after the formation of the Province, the headquarters of the Nerbudda Division.

ARCHÆOLOGY.

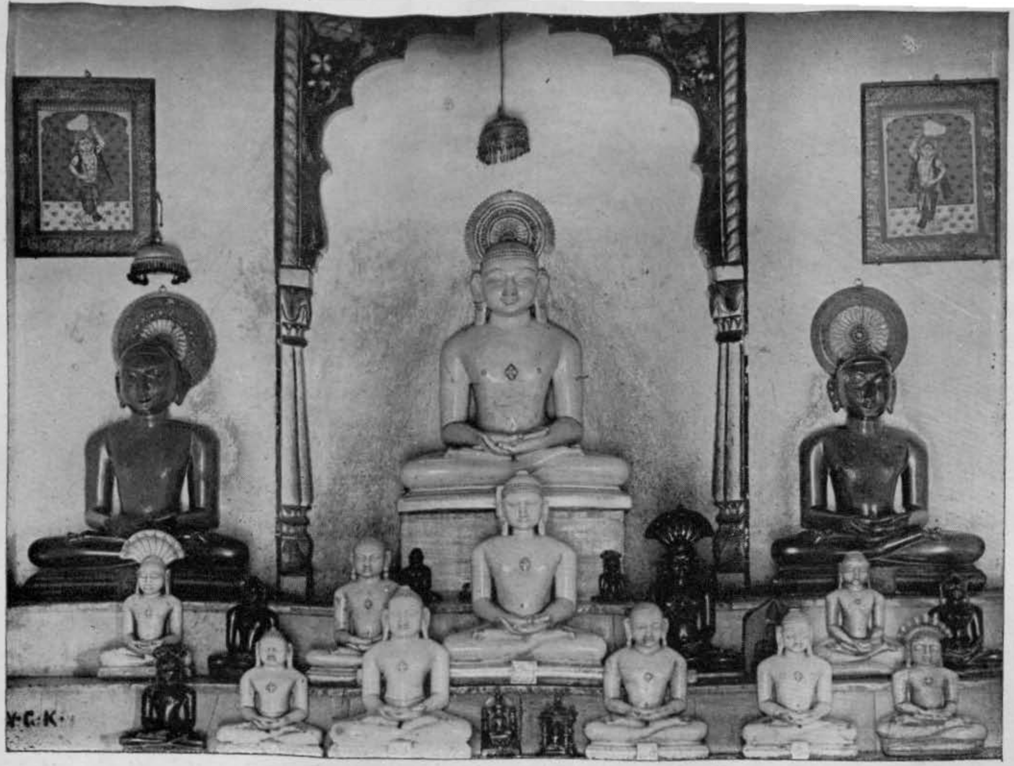
Inscriptions.

32. The oldest archæological relic in the District is a copper plate dated in the year 199 of the Gupta era, corresponding to 518 A.D., which is in the possession of the Kurmī proprietors of Betūl. But the contents appear to show that the plate does not belong to Betūl but has been brought from elsewhere. It refers to the grant of a village in Tripurī, which probably means Jubbulpore, by a Rājā of Nagod. Some Gosains of Multai have three copper plates dated 709 A.D. announcing the grant of a village to a Brāhman by a Rāshtrakūta king Nandrāj, and the places mentioned in these apparently belong to the Betūl District though they have not been identified. Inscriptions exist on a stone on the Multai tank and on others near Kherlā, but they are neither very intelligible nor so old as to furnish any useful historical information.

Architectural remains and sacred places.

33. The most important architectural remains in the District are those of Bhainsdehī and Muktāgiri. Bhainsdehī has an old temple with fine stone carvings, parts of which are in good repair. The temple also contains an illegible inscription and is estimated to be about 300 years old. At Muktāgiri on the southern border are a collection of modern Jain temples forming a picturesque group at the head of a ravine and waterfall. About four miles from Badnūr and dominating the fertile valleys of the Māchna and Sāmpna rivers lies the fort of Kherlā, the headquarters of an old Gond Rājput dynasty. The fort is now in ruins, but parts of the inner and outer walls are still standing. The remains of old forts also exist at Asīrgarh, Bhainsdehī, Khāmla, Saolīgarh, Bhanwargarh, Shergarh and Thātgarh. Most of these are attributed to the Gonds, but the fort of Bhainsdehī

was built by a Rājput and that of Shergarh by a Muhammadan. There are also some Muhammadan tombs, notably those of the general called Rahmān Shāh Dullah at Umrī near Kherlā, and of a Muhammadan saint named Sulaimān Shāh at Pattan, which are venerated both by Muhammadans and Hindus. Mosques exist at Akhatwāda, Rāwanwādi, Dhāba and Kolgaon. A somewhat noticeable feature consists in the number of rock springs or *kunds* and hot sulphur springs or *tapat-jhirās*. These exist at Atner, Bhainsdehī, Bhanwargarh, Multai, Sālbardī, Saolīgarh and other places. Cave temples are found at Bhopāli and Sālbardī. At Kajlī on the Bel river are some ruins of temples and Jain statues of good workmanship, some of which have been taken to the Nāgpur museum. Other remains of images exist at Dudhia and Chīchthāna. At Borī ten miles from Badnūr is the stone image of a Korkū chief, Sakrā Sultān, who is said to have been shot in the thigh by an arrow from Bhanwargarh 40 miles distant. He died and his body turned into stone and the mark of the arrow is still pointed out.



Jain gods at Muktagiri.

Photo.-Mechl Dept, Thomason College, Roorkee.

CHAPTER III.

POPULATION.

STATISTICS OF POPULATION.

Statistics of area and population, density, towns and villages.

34. The area and population of the District in 1901 were 3826 square miles and 285,363 persons respectively. Betūl ranks eighth from lowest among the Districts of the Central Provinces[1] in area and lowest but one (Damoh) in population. It is divided into two tahsīls, of which Betūl with an area of 2770 square miles and population of 170,994 persons occupies the whole of the western and central portion, while Multai with an area of 1056 square miles and population of 114,369 persons, lies to the east. The Betūl tahsīl thus contains nearly three-quarters of the whole area and three-fifths of the population. The density of population is nearly 75 persons per square mile as against 114 for British Districts of the Province. Betūl is now more sparsely populated than any other Districts except Chānda and Mandlā Multai is more closely populated than Betūl tahsīl, the respective figures being 108 and 62 persons. Betūl has much the larger area of Government forest and if this area be excluded, the population of the village area is 88 per square mile as against 165 persons in Multai. The most thickly populated part of the District is the Amlā Station-house area with a density of 147 persons excluding Government forest, while the figures for the other Station-houses are Badnūr 139, Multai 126, Shāhpur 101, Atner 92, Chicholī 87, and Bhainsdehī 61. In 1901 the District had almost two acres of cropped area and three acres of cultivated area per head of population, this last figure being due to the large amount of new fallow land. The proportion of cropped area is high, but the soil is less fertile than in the

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1 Excluding Berār.

plain Districts. There is no doubt, however, that with closer and more careful cropping the land is capable of supporting a considerably higher population. The District contains two towns and 1194 inhabited villages according to the census returns. The village lists give 1338 towns and villages, of which 168 are uninhabited and 1170 inhabited. Of the inhabited villages 35 contain less than twenty persons. The number of villages is increasing as fresh ryotwāri and forest villages are constituted. In 1901, there were 115 of the former and 80 of the latter, while in 1903 the number of forest villages was reported to be 101 of which 32 were uninhabited. Villages are small in Betūl, the average size being 50 houses and 240 persons as against an average of 288 persons for British Districts. At the census more than 60 per cent of the villages contained less than 200 persons. There are two towns Badnūr (5566) the District headquarters, and Betūl (4739) both of which are municipalities. Up to 1901 Multai had a municipal constitution and was therefore considered a town. With the exception of the small official community resident at Badnūr, the District has no urban population in the proper sense of the term. Between 1881 and 1891 the combined population of Badnūr and Betūl increased by nearly 3000 persons but in the succeeding decade it scarcely varied, an increase of about 500 persons in Badnūr being counterbalanced by an almost equivalent decrease in Betūl. Besides the towns, only three villages contained more than 2000 persons in 1901, Multai (3339), Bhainsdehī (2737) and Atner (2590) while 25 villages had more than 1000 persons. The largest villages lie on the open plateau to the south-east.

Variation in population.

35. A census of the District has now been taken on five occasions. In 1866 the area was 3600 square miles and population 244,854 persons. In 1872 the area had increased to 4118 square miles, but the only transfer of territory recorded was that of the country between Amlā and

Bordehī with an area of 160 square miles and population of 13,481 persons from the Chhindwāra District. The remainder of the increase in area appears to be due to correction of survey. The population in this year was 284,055 persons, showing an increase of 10 per cent during the six years, after excluding that gained by accession of territory. The enumerations at this period were not very accurate, but the figures seem to show that the District can only have been very slightly affected by the scarcity of 1869. Between 1872 and 1881 the area was reduced to 3905 square miles in consequence of the transfer of the Bordhā and Keslā *parganas* with an area of 215 square miles and population of 10,032 persons from Betūl to Hoshangābād in 1873. There was also a small interchange of territory between Chhindwāra and Betūl, the latter District gaining 1½ square miles.[1] In 1881 the area of the District was 3905 square miles and its population 304,905 persons, showing an increase of 11 per cent on 1872; this was a considerably lower figure than that obtained in most other Districts, but the enumeration of 1872 was possibly not so much below the mark in Betūl as elsewhere. The year 1878 was unhealthy, the number of deaths being considerably in excess of the births, and mild epidemics of cholera were sustained in one or two other years. The increase deduced from vital statistics during the decade was, however, nearly 10 per cent. There was a certain amount of immigration from Berār during the decade. In 1891 the population was 323,196, giving an increase of 18,291 persons or 6 per cent on that of the previous census, as against the average of 9·6 per cent for British Districts. The increase deduced from vital statistics was 7·7 per cent. The growth of population was mainly in Multai tahsīl which gained by over 9 per cent, while the figure for Betūl was only 4 per cent. The average annual birth-rate during the decade was 42 per mille or slightly higher than the Provincial average of 41 and the death-rate 34 as against the Provincial figure of 32.

[1] Census Report, 1901, p. 140.

During the decade the years 1886 and 1889 were unhealthy, the number of deaths exceeding that of births, while in 1890 the figures were nearly equal. The last five years of the decade were generally not prosperous. In 1891 the area of the District was shown to be 3824 square miles or 81 square miles less than in 1881, the difference being due to correction of survey. In 1901 the population was 285,363 persons showing a decrease of 38,000 or nearly 12 per cent. on the figure of 1891. The decrease was nearly equally distributed between the two tahsīls. Betūl suffered severely in the famines both of 1897 and 1900, while distress existed in several other years. The number of deaths exceeded that of births in the years 1894 to 1897 inclusive, and also in 1900, the death-rate being nearly double the birth-rate in the two latter years. Outbreaks of cholera occurred in seven years, and a severe epidemic was sustained in 1900. The registered excess of deaths over births was 13,180 during the decade and the census disclosed a loss of population larger by nearly 25,000 than this figure, a very heavy excess. The difference is to be attributed partly to the deficient reporting of deaths in the famine years, but to a considerable extent also to emigration into Berār, the number of persons born in Betūl and enumerated in Berār having been more than 19,000 in 1901 as against 9000 in 1891. Allowing for deaths among those already in residence it may be estimated that about 14,000 persons left Betūl during the decade. Nearly the whole decrease of population occurred in the Chicholī, Bhainsdehī and Atner Station-house circles, which contain most of the forest country of the District, while the open country suffered slightly by comparison. Writing in 1902 the Deputy Commissioner noticed the fact that in 1897 the forest tribes refused to resort to relief until they were so utterly enfeebled as to be past all hope of recovery. The average annual birth-rate during the decade was 38½ per mille or the fourth highest and the death-rate 42½ or the seventh highest among the Districts of the Province. The population in 1901

was 37,000 persons more than in 1866 in the same area and the increase in 35 years was 15 per cent. During the four years subsequent to 1901 a rapid development of population took place, the birth-rate having been 55 in 1902, 50 in 1903, 67 in 1904 and 59 in 1905. The registered excess of births over deaths during these four years was 34,000 or nearly equal to the decrease during the previous decade.

Migration.

36. No considerable immigration takes place into the District, nearly 95 per cent of the population having been returned as born within its limits in 1901. Of the small proportion born outside the District the majority came from Hoshangābād, Chhindwāra and Berār, while a slightly larger number of persons born in Betūl were enumerated in the same Districts of the Central Provinces, and, as already stated, nearly 20,000 persons in Berār returned Betūl as their birth-place. A large temporary exodus takes place from the south of the District to Berār for harvesting the juār crop, and from the north labourers go to the Nerbudda valley to cut the wheat.

Diseases.

37. The climate of the District is healthy though in the denser jungles malarial fever prevails for months after the rains. The Gonds however do not seem to suffer so much from this disease as others and they consider country liquor, of which they consume large quantities, to be in some degree a preventative. The mortality from fever is usually high, and resulting enlargement of the spleen is also common. Dr. Quinn, Civil Surgeon, remarks :—'The majority of deaths 'in this District are due to malarial fever, which is of 'remittent and intermittent types. It sets in with the com'mencement of the rains, increases towards the end, and 'subsides with the advent of the cold weather about the middle 'of November. Forest streams have much to do with all 'malarial fevers.' In the open country the water-supply is obtained principally from wells. Ophthalmia caused by dust and flies is prevalent in the hot weather and rains. Opacity

of the lens or cataract is a common infirmity and a number of cases may be seen in almost every village. Ulcers are a common form of disease and especially so in years of distress when the constitution is undermined and the slightest abrasion causes an ulcer which baffles treatment for a considerable time. Skin diseases, especially scabies or itch, are very common and are due to neglect and the uncleanly habits of the people. Of the diseases recorded at the census, blindness and leprosy were rare, while the numbers of deaf-mutes and insane are not above the average for other Districts. In the 35 years between 1870 and 1894 cholera was altogether absent from the District for 15 years, and in six years, 1877, 1889, 1892, 1895, 1897 and 1900 epidemics were sustained causing more than a thousand deaths; the largest number recorded being 3608 in 1900, which was equivalent to a rate of nearly 12 per mille of the population. As elsewhere, cholera is an almost invariable concomitant of distress arising from want of food. Dr. Quinn attributes the comparative mildness of cholera epidemics to the cleanly condition of the Gond villages and the distance at which the villages are situated from each other, this acting as a hindrance to the rapid spread of infection. From 1901 to 1905 the District was free from cholera. Small-pox has always been present but rarely in epidemic form. The highest number of deaths recorded was 476 in 1896, while in only two other years, 1883 and 1889, has it exceeded 200. The mortality from bowel complaints was very severe both in 1897 and 1900. A small outbreak of plague occurred for the first time in 1904 and was practically confined to the town of Badnūr where 31 deaths were recorded. The disease, was probably brought by refugees from Hoshangābād. Cases of lathyrism resulting from the consumption of tiurā (*Lathyrus sativus*) are not so common here as in the Districts of the Vindhyan plateau and Nerbudda valley. An epidemic of a mild form was experienced in 1877 and a few cases occurred between 1896 and 1902. The disease is said

to be more severe in a cold climate. Mr. Standen notes that a number of persons who had become paralysed in 1877 were still to be found in the District at the time of his settlement.

Occupation.

38. There is little to remark on in the returns of occupation. The proportion of the population dependent on pasture and agriculture is 70 per cent of the total as against the Provincial figure of 73. But if general labourers are included, the numbers in Betūl are higher than elsewhere and the distinction between casual and agricultural labour is little more than nominal in a District which has no large towns. Herdsmen are numerous and the number of cattle-breeders and dealers showed a considerable increase between 1891 and 1901. The District has no factories and no hand industries of any special importance, while the numbers supported by the latter have almost invariably declined since 1891. The number of bankers and moneylenders and of money-changers shows some increase.

Language.
The Mālwī dialect.

39. The prevalent language of the District is the Mālwī dialect of Rājasthāni, a name given by Dr. Grierson to the languages of Rājputāna, which though resembling Hindī in vocabulary have such points of difference in inflection as to entitle them to be classed as a separate language. The Betūl dialect is further corrupted by the distance separating its speakers from the headquarters of the language, and the neighbourhood of Hindī and Marāthī. Some noticeable peculiarities of the local dialect furnished by Mr. Hīra Lāl are the following. The prepositional or case particles are usually shortened; thus *tumko* (to you) becomes *tumakh; phal mén bījā* (seed in the fruit), is *phal ma bījā; main né khāyā* (I ate) becomes *mī na khāyo.* The pronouns assume various forms. *Main* (I) is *mī* as in Marāthi; *wah* (he) is *u* as in Bundelī, while its feminine, she, is *bā* or *wā*. 'They' is *uī* as in Baghelī. 'This' is *yū* or *yéné.* In verbs there

is a tendency to insert the termination *ya*. Thus, *lagā hai* would be *lagyo hai*. The present participle *hotā* becomes *hoya*. The vocabulary is much the same as Hindī, but a few common words are different as, for instance, *bahut* (many) is *bamé*. It is noticeable that the people of the District, though using this dialect among themselves, commonly talk in the *theth* or correct Hindī when addressing Government officers, so that its existence might easily remain undetected for a considerable period. The Bhoyars and Katias have caste dialects of their own, resembling the Mālwī dialect, and including these the total number of speakers of this dialect is 113,000 persons or 40 per cent of the population. The Mālwī dialect was no doubt introduced when the District was colonised under the rule of the Mālwā kings in the fifteenth century.

Statistics of language.

40. The Berāri dialect of Marāthī is spoken by 66,000 persons or 23 per cent of the population, being mainly found in the Multai tahsīl. The large majority of the Gonds and Korkūs were returned at the census as retaining their tribal speech, though they usually know a broken Hindī or Marāthī for the purpose of conversing with outsiders. Thus out of 83,000 Gonds all but one thousand spoke Gondī and of 24,000 Korkūs all but two thousand returned the Korkū language. Gondī is spoken by 28 per cent of the population and Korkū by 8 per cent.

Gondī and Korkū.

41. The following remarks of Dr. Grierson on these languages may be reproduced. 'The 'chief peculiarity of Gondī is its ela-'borate conjugational system, it being much better supplied 'with tenses than are its cousins to the south. Bishop 'Caldwell considered that as a whole the language shows a 'closer connection with Tamil than with its neighbour Telugu. 'Gondi has no literature and no character of its own, but 'the Gospels and the book of Genesis have been translated 'into it. There are several grammatical sketches and voca-

'bularies of the various dialects.' Gondī is a Dravidian and Korkū a Mūnda or Kolarian language. Dr. Grierson describes the latter group as follows :—'As explained above, 'the Mūnda, sometimes called the Kolarian family, is pro- 'bably the older branch of the Dravido-Mūnda languages. 'It exhibits the characteristics of an agglutinative language 'to an extraordinarily complete degree. Suffix is piled upon 'suffix until we obtain words which to European eyes seem 'monstrous in their length, yet which are complete in them- 'selves and every syllable of which contributes its fixed quota 'to the general signification of the whole. One compara- 'tively simple example of the use of suffixes must suffice. 'The word *dal* means "strike" and from it we get *dal-ocho- 'akan-tahen-tae-tiñ-a-e* which means "He who belongs to 'him who belongs to me will continue letting himself be 'struck." If we insert the syllable *pa* in the middle of the 'root, so that we get *dapal*, the beating becomes reciprocal 'and we have a fight, so that *dapal-ocho-akan-tahen-tae-tiñ-a-e* 'means "He who belongs to him who belongs to me will 'continue letting himself be caused to fight." Again if we 'substitute *akao-an* for *akan* the same pugnacious individual 'with a string of owners, will with less disinterestedness 'continue causing to fight only for himself. An impression 'of the enormous number of complex ideas which can thus 'be formed according to the simplest rules may be gained 'from the fact that the conjugation of the verb "to strike" 'in the third person singular alone, occupies nearly a 'hundred pages in Mr. Skrefsrud's Santāli Grammar The 'names which we give to many Mūnda tribes are not those 'by which their members call themselves, but those which we 'have adopted from their Aryan-speaking neighbours. Most 'of the tribes simply call themselves "men" the same word 'with dialectic variations, Kol, Korā, Korkū (simply the plural 'of Kor), Horo, Hor or Ho being used nearly universally.'

RELIGION.

Hindus and Animists.

42. The figures of religion show that Hindus constitute 69 per cent of the population, Animists 29 per cent, and Muhammadans 2 per cent. The distinction between Hindus and Animists is naturally very rough and ill-defined in a tract where the religion of the whole people is so largely tinctured with nature worship as hardly to be separable from Animism. Generally, however, the Gonds are considered not to be Hindus and the Korkūs, who worship Mahādeo, the sun, and one or two other orthodox deities, to have gained admission into the social pale. The Gonds both use the cow for ploughing and occasionally sacrifice heifers to their deities if they can afford them, and both these practices may be said to debar them from being classed as Hindus. It is possible that the Gonds with the traditions of the past behind them, when they were the governing class and it was by their favour that the Hindus immigrated and tilled the land, have purposely maintained these practices by way of indicating their refusal to adopt the alien faith into which the other primitive tribes are gradually being absorbed. The Rāj-Gonds, however, who form the landholding subdivision of the tribe, have become Hindus and some of them live after the straitest sect of that religion.

Village gods.

43. As elsewhere, a number of village gods and godlings are venerated by the people as being the indigenous deities of the country, the soil and the hearth, and thus having a more intimate connection with their trifling daily concerns than the high gods who are far removed from them and cannot intervene in such small matters. Hardāul[1] Lālā is a Rājput prince who was poisoned by his brother the king of Orchhā. He has a platform outside the village and occasionally the people go out, cook their food before his shrine and come back again. He is also worshipped at weddings, and clay

[1] Locally known as Hardu.

horses are offered to him. Devī in Betūl is the goddess who gives protection from epidemics. If cholera breaks out, the Bhumkā or priest of the village gods, who is a Gond or a Korkū, stays the whole day in front of Devī's shrine and makes offerings of all articles of food, drink and clothing so that the goddess having obtained what she wants may avert the disease. He then takes all these things to the boundary of the village and buries them there. Sometimes a goat is buried alive, or set free and driven out of the village. At the same time everyone throws outside the village boundary a broom and basket containing some of the sweepings of his house. Afterwards for a period of 8 or 15 days or a month, according to the virulence of the disease, nobody may grind corn or kill any animal or cook anything with *ghī* or oil. Mahābīr or Hanumān is the *Khedāpati* or tutelary deity and has the usual little alcove under a pipal or banyan tree with the image of a monkey in red vermilion. The writer once saw several pieces of wood nailed across the front of the little shrine and on asking the reason for this was told that Hanumān, being the monkey, is impish and playful, and there is fear that while the people are worshipping him he will run away to the jungle, so he is barred in to prevent this. The explanation affords a curious instance of primitive religious thought, as showing that the people consider it worth while to worship a deity of so unstable a disposition and also think that they can keep their god imprisoned by a few strips of wood. A Gosain or a Gurao acts as the priest of Mahābīr and he is worshipped on Saturdays, and at all festivals. Matyā is the tutelary deity of Gondī villages, and he is represented by a heap of stones in the centre of the road between the two rows of houses of which the village usually consists. Matyā is worshipped when epidemics break out and also at Dasahra. He is a vindictive god and if neglected steals food from houses and sometimes throws away the *chapātis*, which then look as though they were swept off by the wind. If a tiger enters the village

or takes an animal or man, the Bhumkā worships Matyā to induce him to drive the tiger away. It is said that in one or two cases Matyā has enabled the Bhumkā to procure tigers for European officers who were shooting when they had previously been unattainable. Bāgh Deo is the tiger god and is found in villages whose vicinity is frequented by tigers. He is represented by a large stone daubed with vermilion under a tree. Two shrines of Bāgh Deo were recently in existence on the Itārsi road, to which travellers offered a cocoanut. One of these was haunted by the ghost of a Dhobī who had been carried off by a tiger. A native *shikāri* or hunter often sacrifices a goat to Bāgh Deo before going out hunting. The godlings known as Pīrs are the spirits of Muhammadan saints and they usually inhabit one of the towers of an old fort, which is also a favourite place of residence of Muhammadan Fakīrs in the flesh. The Pīr is supposed to be the guardian angel of the fort. The Pīr is usually worshipped only by the mālguzār of the village, who burns incense before him on Thursdays, and sometimes keeps a lamp burning for an hour or two every day in his shrine. The Pīr is a jealous personage and if neglected he will cause stones to fall down inside the house, or make the milk go sour in order to recall his indolent worshipper to a sense of his duty. Dait is the spirit of some seer or medium who was possessed by the deities in his lifetime, and is commemorated after his death by a stone placed under a tree to which homage is paid. Such persons are nearly always members of the Ahīr caste. Bhainsāsur or the buffalo is represented by a stone placed in the field, every tenant sometimes having one in his holding, while in other places there are one or two for the whole village. He is worshipped when a cow runs dry or the milk turns bad. On the day before Dasahra the Māng and Kotwār take a male buffalo and bring it to the mālguzār, who makes a cut on its nose and draws blood. It is then taken all round the village and to the shrines of the gods, and in the evening is killed

and the flesh eaten by the Māng and Kotwār. This is to commemorate the victory of Devī over the buffalo demon after a 9 days' struggle, while it is also said that if the blood of a buffalo does not fall on the village some epidemic will attack it during the year. But the custom shows a tendency to fall into abeyance owing to the disinclination of the mālguzār to provide the buffalo for the sacrifice.

Festivals.

44. On Akhātīj, the third day of the light fortnight of Baisākh (April-May), the agricultural year begins. At noon 5 or 7 red earthen pots are filled with water and placed in the *chauk* or square of lines of flour. A thread is tied round each, and a leaf cup containing a little wheat flour and a mango is placed in its neck. The pots are then worshipped, and turmeric, rice and flowers are offered to them. In the afternoon the people go out to their fields and, after offering a cocoanut to the earth, drive one or three short furrows with the plough. Kunbīs wash the big toe of the right foot of their Joshi or family priest on this day and drink the water or throw it over their heads. Until the Joshi visits their house on his rounds they remain fasting up to evening. When sowing begins the Bhumkā collects a pice from each tenant and ties up a little wheat in the leaves of the *tendū* tree. Each tenant is given one of these and places it in his sowing basket and begins his sowing on that day, usually a Friday. The *Jirotī* falling on 15th Asārh (June-July) is a Gondī festival. On this day a little cooked food is offered to Bhīm on a teak leaf and fresh teak leaves are brought into use. The Gonds think that if they eat honey on this day it will keep them healthy throughout the year. The Harelī festival is on the 15th day of Shrāwan (July-August) and is so called because at this time the earth appears *harī* or green with the new grass. The village painters draw pictures of the goddess Devī on paper and distribute them to all houses, receiving a present of grain in return. The Sonārs make

small images of Devī in tinsel and place them on the doors of their customers' houses, while the Lohār and Barhai drive an iron nail and a wooden peg into the threshold to avert ill-luck, each receiving a small present. On Nāg Panchamī the cobra is worshipped and in Sainkhedā it is said that he actually appears to the people, who consider when they have seen the snake that the coming year will be auspicious. But if he does not appear they fear that some calamity will befall them. Gaj Gaurī lasts for the first fortnight of Bhādon (August-September). This is a woman's festival, at which Mahādeo and Pārvatī are worshipped as types of conjugal felicity. Clay idols of the deities are made and seated on a clay elephant, and each woman keeps a thread in which she ties a knot for each day that passes. On the sixteenth day the knotted thread is offered to the deities. On the Dasahra festival on the 25th day of Kunwār (September-October), the Bhumkā sets up Dongar Deo, the god of the hills, on the boundary of the village, and the Gonds go out and worship him, offering a goat if they can procure one. This worship of Dongar Deo is believed to avert all calamities for the year. Hindus worship their ponies on this day by marking their foreheads with rice and turmeric. The mālguzār gives the kotwār his old clothes and a present of a few pice. At Diwāli on the 15th day of Kārtik (October-November), the Ahīrs or herdsmen go round to the houses of their employers and sing songs after the manner of the Christmas Waits, receiving a small present. Next day they make a large figure of cowdung called Govardhan, together with representations of all household utensils. *Ghī*, milk and curds are offered to Govardhan and then the Ahīrs fall to fighting, each trying to throw another into the heap of dung.

Meghnāth.

45. The Holī festival falls on the last day of Phāgun (February-March) and is observed in the usual manner. After the Holī the ceremony of Meghnāth is performed, which consists in swinging a man in the air. A high pole is erected and a

cross-bar turning in a socket is secured to the top of it. The pole is cut from the forest in a place where two straight trees grow together, it being said that the place from which to cut it is revealed to the Bhumkā in a dream. It is brought from the forest on a cart drawn by ten pairs of bullocks and a quantity of salt is placed in the hole dug for it to prevent the wood from rotting. When the ceremony is performed the Bhumkā is tied to the cross-bar and ropes are secured to it and held by the people, who pull the cross-bar round five times in a circle in its socket. In former times the Bhumkā was swung round suspended by a hook fixed in his back, and the ceremony is supposed to exercise an important influence in the direction of securing the success of the crops, but what the idea underlying it is, cannot be stated. The pole is left standing from year to year and if it falls down it is considered a bad omen. After the Bhumkā has been swung round he is given a cocoanut and two pieces of cloth by the mālguzār.

The Bhumkā and Gārpagāri.

46. The customary remuneration of the Bhumkā was *merhkuro* or a *kuro* of 13 lbs. of grain and a sheaf at harvest from each tenant. But the tenants have lost their awe of the Bhumkā and only give him a few pounds, or they tell him to come the next day and in the meantime remove the crop from the field to the threshing-floor and then say 'Now the crop has gone and I cannot give you anything.' Formerly the Bhumkā was given whatever he stated to be necessary for appeasing the gods, but the tenant now only gives him a little and says 'You must make all the gods content with that.' The Bhumkā also had mahuā trees given to him, but he gets these no longer and has had to take to cultivation to make a livelihood. Once a year in the beginning of Asārh (June-July) the Bhumkā makes a circuit of the village, and finally on the eastern boundary presents an offering of cocoanuts, dates and a hen and a goat to the forest deities, the people of the village accompanying him

and taking their food on the site. This ceremony is supposed to secure the men and cattle of the village from damage by wild animals and also to protect crops from their ravages. As in other Districts hail is averted by a special village official called the Gārpagāri. When dark clouds are in the sky at a red sunset the Gārpagāri thinks that hail is coming and goes and stands before Mahābīr's shrine and threatens to kill himself or his son, or he tries to divert the hail storm by throwing a handful of grain into the air in the direction in which he wishes it to go. In some villages on the Berār side the Gārpagāri dips some grains of seven different kinds of spring crops into the blood of the buffalo slaughtered at Dasahra; he then places them in an earthen pot which he buries near his cooking-place. When hail threatens it is said that the grains give out a humming sound like boiling water and thus the Gārpagāri gets warning. The Gārpagāri has the horn of a black-buck which he blows before Mahābīr. In return for his services he is supposed to receive the same as the Bhumkā. But this is often not paid and the Gārpagāri has also had to abandon his priestly functions and adopt a secular mode of livelihood.

Primitive customs.

47. If there is a drought and rain is urgently wanted, occasionally two naked women are harnessed to a plough at night and driven by another woman. It is believed also that a frog can bring and stop rain as he lives in the water. The little boys tie a frog to a stick with a rag and carry it through the village chanting

Mendak bhai pāni de
Dhān kodon pakne de

or 'Brother frog bring rain and let the rice and kodon ripen.' As they carry it round to each house the householder pours some water over it. It is interesting to note that this device for obtaining rain is mentioned in Vedic literature. If there is too much rain and a break is desired, a frog is sometimes buried alive by a naked boy, the idea

being that the rain will stop when the frog, the animal especially associated with it, has disappeared. Or an earthen pot is filled with salt and plastered over and the people believe that it will not rain till the pot is opened. A method of treatment for internal pains in the body is to brand the part with a heated iron instrument. No water must be poured over the iron to cool it, as they think that if this is done boils will appear on the part of the body which has been branded. Many persons branded on the stomach in accordance with this supposition may be seen. Again, if somebody has a swelling in his eye they take seven leaves of the *ber* or wild plum tree and, thrusting a thorn through them, throw them on to the roof of the house with the belief that as the leaves dry up so will the swelling disappear. If a man gets maggots in a wound he is believed to be smitten of God. The Bhumkā goes and shuts the door of his house and then all the villagers know what has happened. He may not go to the village well himself and the Bhumkā draws water for him. After the wound has been cured, all earthen vessels and other small articles are thrown out of the house, only copper and brass utensils, new clothes, grain and cattle being allowed to remain. The caste people must be fed and the man's hair and moustaches shaved and he is then readmitted to caste intercourse. If this calamity attacks a poor man, the village subscribes to defray the expenses of his purification. When small-pox breaks out in a house, a branch of the *nīm* tree is hung over the door and the Bhumkā goes and offers water to Devī, taking it from a running stream. Two *lotās* full are offered and the second is given to the patient to drink. Various rules of abstinence are observed by the members of the household. The patient is given plantains, sugar-candy and raisins to eat. If a child is attacked, they take it to Devī's shrine after 14 days and make offerings of vermilion, cocoanuts and spices, the lower castes also sacrificing goats, fowls and pigs. Brāhmans and the higher castes offer boiled wheat and gram, and if they vow an animal sacrifice, give a

kid or a chicken and let it go at the shrine without killing it. Or at the most a small piece of the ear is cut off and the animal is then taken by the Bhumkā. If the attack is severe, the mother of the child will roll along the ground the whole way from her house to the shrine of Devī. Or if she is too weak to do this herself she will hire somebody to do it for her. Or sometimes she will walk to the shrine carrying fire on her head in an earthen pan. Or she goes round begging in the name of the goddess from five houses, taking a little corn from each, and this is then cooked at her shrine as an offering and eaten by the father and mother of the child. Or a cradle and a blank sheet of paper are offered with miniature clothes like those the child wears. Or well-to-do people offer a pair of silver eyes and a piece of wire a cubit long to represent the throat so that the eyes may be saved and the throat not get choked up.

Beliefs of the Gonds and Korkūs.

48. The Gonds are theoretically divided in Betūl into three classes worshipping seven, six and three gods respectively, but the bulk of them know little of these distinctions and continue the practice of the ceremonies handed down to them, making the customary offerings to the deities at stated periods like their fathers before them. Of the seven gods six are said to be representations of iron implements and weapons used in the chase, and the seventh to be the covering of a spearhead made of tasar silk. The images of the gods are made by a blacksmith in the Deokhalā or place of worship. This is an open space under a *sāj* tree selected by a Gond who is a Bhagat or one possessed by the deity. A flat stone is placed under the tree and covered with a piece of coarse cloth and on this the images of the deities are deposited. In order to cast them the smith must go with his wife to the place of worship in the early morning, both of them being naked. New grain, a *talang* or barren hen, goats, heifers and pigs are offered to the gods when available, and are then cooked and eaten by the assembled

members of the tribe. The Goṅds think that the world was created by one Bhimmā who is supposed to have been the father of Mahādeo, but has been supplanted by him much in the same way that Saturn was displaced by Jupiter. They observe most of the Hindu festivals in their own manner. They believe in ghosts and spirits, by whom most illnesses are caused and who must be exorcised by the Bhagat. They think that each tree or animal has a spirit. A man must not shake a tree at night nor pluck any of its leaves or fruits, as the spirit of the tree goes to sleep. Similarly before climbing a tree he should beg its pardon for the rough usage to which it is to be subjected. In the same manner the Fiji Islander before he eats a cocoanut makes obeisance to it and says 'Pardon me for eating thee, oh my king.' The Korkūs worship Dūlha Deo, Hardaul Lālā, Bāgh Deo and Dongar Deo, the god of the hills, and they especially venerate Mahādeo, who in Betūl is considered to be the ultimate ancestor of the tribe. Kāla Deo is considered to be a deity attending on Mahādeo and is represented by a few wooden stakes placed in the ground outside the village or under a tree. All the deities are especially worshipped on the occasion of an eclipse or on the death of a member of the family. At the new moon of Chait (March-April) the Korkūs worship all spirits and offer them cakes of sugar and wheat crumbled into fragments so that there may be enough to go round for all the spirits, and also goats, eggs and vermilion.

Muhammadans and Jains.

49. Muhammadans number nearly 5000 persons, of whom 900 live in Badnūr and 200 in Betūl. They own between 40 and 50 villages, the principal Muhammadan family being that of the brothers Sheikh Salā-ud-dīn and Sheikh Alā-ud-dīn who live in Multai. The number of Jains is very small, being under a thousand. They are principally Saitwāl Baniās.

Christians.

50. In 1901 there were 417 Christians, the large majority of whom were natives. The number of Native Christians increased

from 34 in 1891 to 384 in 1901. They are mainly converts of the Mission of the Evangelical Lutheran Church of Sweden. This body has four stations in the District at Badnūr, Nīmpāni, Bordehī and Kondhār two miles from Chicholī. There is also a small settlement of converts at Pātākhedā, a village some 8 miles from Chicholī. Each of the four stations has some European missionaries, usually Swedes. The Nīmpāni station is the largest one and owns the village of Amgohān, and it has also a church and schools for girls and boys. At all the stations medical aid and advice are afforded to the people of the surrounding villages. A station of the Korkū Central India Hill Mission belonging to the Church of England was opened at Bhainsdehī in 1891. The Mission supports an orphanage containing about 90 boys, including a number of Korkūs. Betūl is in the Anglican diocese of Nāgpur and is visited by a chaplain from Kamptee. It is in the Roman Catholic diocese of Nāgpur.

CASTE.

Constitution of the population.

51. The population consists of a large proportion of Gonds and Korkūs and of immigrants from Mālwā through Hoshangābād on the north and from Berār on the south. The northern settlers probably entered the District with Hoshang Shāh Rājā of Mālwā in the fifteenth century, while the Marāthās immigrated with the rise of the Bhonslas in the seventeenth. The latter are found principally, as might be expected, in the Multai tahsil which borders on Berār. The Gonds and Korkūs numbering 83,000 and 24,000 respectively, constitute 37 per cent or nearly two-fifths of the population. Among immigrants from the Marāthā country Kunbis (31,000) and Mehras (28,000) forming 11 and 10 per cent of the population, are the principal castes, but many of the professional castes as Chamārs, Barhais, Telis and others have subcastes called Mālwī and Marāthī, showing that they are made up of immigrants both from the north and south. Of the whole

population 23 per cent or something more than a fifth are Marāthī speakers and this proportion probably represents the extent of the immigration from the south. The remaining two-fifths of the people came from the north and the most important castes among these are Kurmīs numbering 14,000 or five per cent of the total, Ahīrs 15,000 or 5 per cent, Bhoyars 18,000 or 6 per cent and Telis 8000 or 3 per cent. Brāhmans though numerically weak are the largest landholders with about 210 villages out of a total of 1338 and next to them come Kunbīs with nearly 200. The Kunbīs are not such good cultivators as the Bhoyars, Mālis and Pardesī Kurmis, and do not improve their villages so often. Most of their villages are on the trap plateau. Rājputs have 130 villages and Baniās nearly 170, though the numbers of the latter caste in the District are under 2000. The principal landholders among them are two large moneylenders, both of whom are Dhūsar Baniās. Kurmīs hold nearly 90 villages. There is a small colony of Pardesī or northern Kurmīs who came from Unao at the beginning of the 19th century; they followed the fortunes of a well-to-do member of the caste who did good service with the British troops in 1817 and was rewarded with a rich estate. The Bhoyars hold nearly 50 villages and are excellent cultivators, having constructed many irrigation wells for sugarcane, but they are fond of drink. Muhammadans have 45 villages and Kalārs, Kirārs and Ahīrs about 40 each. Many of the Ahīrs live in the open country and are cultivators, but there is a subcaste of Rānya Gaolis (from *rān* jungle) who live in the forests of the north of the District and on the Khāmla plateau and breed cattle. They also let out cattle to the Gond cultivators who have none of their own, and are addressed by them as Mahājan. Korkūs own about 50 villages, having lost a number of them in recent years, and Gonds about 30. Formerly the most important estate in the District, that of Chāndu, called the Chaurāsi as consisting of 84 villages, was held by a Korkū family, but it has been subdivided and part of it lost. The

most prosperous proprietors belong to the Baniā, Brāhman, Kunbī, Kurmī and Bhoyar castes. Gonds, Korkūs and Mehrās are generally farm-servants and labourers.

Brāhman.

52. Brāhmans number only about 4000 persons, or 1 per cent of the population, this being the lowest proportion of the caste in any District except Bālāghāt. They are, however, the largest landholders. The most ancient families belong to the Mālwī subcaste and came to the District about the 13th century, being invited by the Rājā of Kherlā to perform sacrifices for him. The Deshmukh family of Barkhed in the Multai tahsīl is the most important of these and the local head of the Mālwī Brāhmans. Many of these Brāhmans are patwāris and *Joshis* or village priests and astrologers, and they also do cultivation. Their dress and style of living resemble those of Marāthā Brāhmans, though they are generally supposed, as their home is north of the Nerbudda, to belong to the Panch Gaur or five northern divisions; and Marāthā Brāhmans will take food cooked without water from them, though they do not admit that the *achāra* or mode of living of the Mālwī Brāhmans is quite orthodox, and the latter are sometimes said to have been descended from the union of a Brāhman with a Mallāh or Kewat woman. The Mālwī Brāhmans intermarry with members of their own subcaste in the Central Provinces and Berār, but not in Mālwā. Of the northern Brāhmans the Kanaujia subcaste are the most numerous, and of the Marāthās the Kokanasth or those who lived originally in the Bombay Konkan. The Deshasths who belong to Poona and are the most prominent subdivision in the Nāgpur plain are scarcely found in Betūl.

Rājput.

53. The Rājputs number 5000 persons or 2 per cent of the population and hold 130 villages. They live principally in the Multai pargana adjoining Chhindwāra and in the Atner pargana in the south. The bulk of them were Tuar Rājputs, but have been formed into two local groups or subcastes the Sūrajvansīs and Raghu-

vansīs. These now marry among themselves, whereas a true Rājput must take his wife from another sept than his own. They have group or family names like other low castes, some of which are territorial as Budhāniyā (from Burhānpur), while others are the names of Rājput septs as Nikum, Jādon and Rāthor. The Raghuvansīs say that they are the descendants of Raghu who was born of the sun, and to whose line the great Rāma belonged. Mr. Elliott says: 'They are obviously of impure blood as they marry only 'amongst themselves, but whenever they get wealthy and 'influential, they assume the sacred thread, stop all familiarity 'with Gūjars and Kirārs (with whom they are accustomed to 'smoke the *huqqā* and to take water) and profess to be very 'highcaste Rājputs indeed '[1] They, however, permit widow-marriage and invest their boys with the sacred thread at the time of marriage instead of performing the proper thread ceremony. The marriage ceremony combines the Marāthā fashion of throwing coloured rice and the northern one of walking round the sacred post. The Sūrajvansīs do not have a marriage-post at all, but walk round the *kalasas* or pots filled with water, moving in the space enclosed by four plough yokes. Among the Raghuvansīs women do not accompany the marriage procession, but go outside the village with it and then returning hold a sham marriage of their own, one woman being dressed up to represent the bridegroom and another the bride, and the ceremony being gone through. They say they do this because they are not allowed to accompany the wedding party and they will not be done out of a marriage altogether. A section of the Sūrajvansīs do not allow widows to remarry and on this account form a separate subcaste, while those who do are called Pātkaryās or performers of the *pāt* ceremony. The local Rājputs are thus of very inferior status and have now no real pretensions to the name. They are generally cultivators and in skill and industry are about equivalent to Kunbis.

Baniā.

54. Although the number of Baniās is under 2000, they are the largest landholders next to Brāhmans and Kunbis. A large proportion of them are Dhūsar Baniās and they now call themselves Bhārgava Brāhmans, Rai Sāhib Seth Sundar Lāl of Multai being the leading representative of this class. His family belongs to Rewādi in the Punjab, the headquarters of the Dhūsars, and was the first to enter the District. The other Dhūsars followed him, attracted by his success, and most of them have settled in and round Multai, and beginning as petty shopkeepers and moneylenders, have acquired a village or two each. The name Dhūsar is derived from a hill called Dhūsi or Dhosi in the Alwar State, where a saint who was the ancestor of the caste is said to have performed his devotions. 'The Dhūsars combine the office aptitude 'of the Kāyasth with the keen scent for moneymaking and 'the flinty hardheartedness to a debtor characteristic of a 'Baniā. They are consequently mostly hard landlords and 'wealthy men.'[1] This description, however, must not be taken to apply generally to the landlords of this community in the Central Provinces at least, two of whom have been rewarded by Government with titles for public services, while to Rai Sāhib Seth Sundar Lāl's generosity a large proportion of the success of the recent debt-conciliation proceedings must be attributed. There are also a number of Oswāl Baniās, who are recent immigrants, but have acquired a large number of villages. The two principal moneylenders of Badnūr belong to this subcaste. Another class, the Saitwāls, are Jains by religion and are apparently Marāthā Baniās or Wānis who have been converted to Jainism and formed into a separate subcaste. They are called Bīspanthīs as they worship idols as opposed to the Terāpanthīs who worship the sacred books. They wear Marāthā clothes and perform the marriage ceremony in the Marāthā fashion. They permit the marriage of widows.

[1] Mathurā Settlement Report, p. 27.

55. The Kunbīs are the most numerous caste in the District next to the Gonds. They are immigrants from the south or Marāthā country and probably entered Betūl in the 17th or 18th century. They are the principal cultivators in all the best villages of the trap plateau except those situated immediately round Betūl, and in the part of the Multai tahsīl lying between Ramli, Dunāwa, Barkhed and Chichandā. They are not such good cultivators as the Bhoyars, Mālis and Kurmīs and do not improve their villages so often. Most of the Kunbīs of the District belong to the Lonhāre subcaste and derive their name from Lonār Mehkar, a place in the Buldāna District of Berār. The salt lake of Lonār lies surrounded by hills and is the fabled den of the demon giant Lonāsur who was overcome by Vishnu, and is buried beneath the lake, whose salt water is supposed to be his blood. The Tiroles, another subcaste who in Wardhā rank as the highest, claim that their ancestors were Rājputs who came from Therol in Rājputāna and were merged in the Kunbī caste on taking to cultivation. A Kunbī marriage takes two days and a night to perform. On the first day the bride and bridegroom are seated together, and as the sun sets, drums are beaten and rice and juār are thrown on to their heads. On the second day a leaf of the pīpal tree and a piece of turmeric are tied by a string round both their wrists. They are seated in the centre of a square made of four plough-yokes and the untying of the string by the officiating Brāhman constitutes the essential and binding portion of the marriage. Among the Lonhāre subcaste a curious ceremony is performed after the marriage. A swing is made and a round pestle which is supposed to represent a child is placed on it and swung to and fro. It is then taken off and placed in the lap of the bride and the effect of performing this symbolical ceremony is supposed to be that she will soon become a mother. The Kunbīs burn their dead on a river bank, or if there is no river at hand,

Kunbī and Kurmī.

by a well. After the cremation the party, with the exception of the dead person's family, take their food on the spot and will not go home without doing so. While going to the burning-*ghāt* they wrap up some flour and pulse and two pice in the head-cloth of the dead man and leave it by the side of the road, and on arrival they place two pice on the ground as the hire of the site. These articles are appropriated by the sweeper or kotwār of the village. The Kunbīs eat fowls and most of them drink liquor, though some abstain from this. The Kunbī is a great believer in spirits and ghosts and is always careful to worship them to avoid their displeasure. A proverb says 'Brāhmans die of indigestion, Sonārs from bile and Kunbīs from ghosts.' The Brāhman is always feasted as an act of charity and given the best food, so that he overeats himself, while the Sonār gets bilious from sitting all day before a furnace. The Kunbī women are very strong and do a lot of field work. The Kurmīs are only about half as numerous as the Kunbīs and they also own about half as many villages. Their cultivation is generally superior and they are better off. The caste have immigrated into Betūl from the north, some coming from Mālwā and others from Oudh, the latter as already mentioned having settled in the District little more than 100 years ago, on the grant of an estate to the ancestors of the Betūl proprietary family. These are called Pardesī Kurmīs or foreigners, while those coming from Mālwā, who are found in the north of the District between Shāhpur and Rānīpur, are called Dholewār from Dholā, a town in Rājputāna. These latter are the earliest immigrants and are sometimes called Deshī Kunbīs or Kunbīs of the soil to distinguish them from the later Marāthā Kunbīs. They are not really Kunbīs at all, but the Kurmīs and Kunbīs, who are the great cultivating castes of Hindustān and the Deccan respectively, are sometimes confused. The Kurmīs do not eat fowls and their women wear *lahengās* or skirts instead of *saris*.

Bhoyar.

56. Bhoyars number 18,000 or about 6 per cent of the population and are more numerous in Betūl than in any other District. They hold nearly 50 villages. The principal subdivisions are the Ponwār and Dholewār Bhoyars. The Ponwārs say that they are the descendants of some Ponwār Rājputs who were defending the city of Dhāra Nagarī or Ujjain when it was besieged by the Emperor Aurangzeb. They were set to defend the western part of the wall, but they gave way and fled into the town as the sun was rising and it shone on their faces. Hence they were called Bhoyar from a vernacular word *bhor* meaning 'morning,' because they were seen running away in the morning. They have now entirely abandoned Rājput customs and rank lower even than the ordinary cultivating castes as Kurmīs and Kunbīs. But there is little doubt that their ancestors did come from Rājputāna, probably in the 15th century with Hoshang Shāh. Their *bhāts* or genealogists still reside at Ujjain, and they speak a corrupt form of the Mālwi dialect, which is named after them Bhoyarī. The men are generally well-built and of light colour and the women are good-looking. The Dholewārs are said to have come from Dholā in Mālwā. The Bhoyars do not wear the sacred thread, while they drink liquor and eat fowls and pork. Their marriages generally take place at an early age and infants of one or two months old are sometimes given in marriage. Occasionally contracts of betrothal are made for children still in the womb provided they turn out to be of opposite sex, and in token of the contract the wombs of the mothers may be touched with vermilion. A bride-price called *dej* is usually paid and consists of Rs. 5 in cash with 12 *kuros*[1] of grain and 8 seers of *ghī* and oil. They invite their dead ancestors to come and participate in the marriage by offering them the flowers of the *akowā* or swallow-wort plant. The family god is also present, being placed in an earthen jar with a burning wick. Their marriages take only

[1] One kuro=18 lbs.

one day to perform and are always held in the bright fortnight of the month of Baisākh (April-May). They permit widow-marriage, but consider that the widow should marry a widower and not a bachelor. A woman who has offended with a man of another caste, except the very low ones, may be readmitted to caste intercourse by the ceremony of cutting off a lock of her hair and the infliction of a fine. Unmarried girls usually wear skirts instead of *sāris* and also must not wear toe ornaments. The caste are addressed by outsiders as Mahājan or Patel and they frequently add the title Deo to their names.

Kirār, Ahīr and Māli.

57. The Kirārs are another caste of agriculturists who have come from Central India, having probably entered the District from Gwalior in the 17th century. They say that they left their homes because they had a quarrel with the Rājā about the payment of rent, and they are still noticeably quarrelsome and independent as well as being very fond of money. A proverb says 'If you put a rupee between two Kirārs, they become like *must* buffaloes in Kunwār.' The Kirārs eat flesh and fowls and drink liquor, and their status in Betūl is somewhat below the Kurmīs and Kunbīs, though in Nāgpur they are more highly thought of. The Ahīrs, or Gaolīs as they are more commonly called in Betūl, number 15,000 persons or 5 per cent of the population. They live principally in the Shāhpur and Bordā parganas in the sandy tracts to the north, and also on the Khāmla plateau to the south, and are cultivators and cattle-breeders, while a few breed ponies. The Gaolāns are an inferior subdivision of Gaolīs. The marriages of most of the Gaolīs take place in the month of Māgh (January-February) and those of the Rānya Gaolīs in the bright fortnight of Kārtik (September-October). At the ceremony the bride is made to stand on a small stone roller; the bridegroom then takes hold of the roller facing the bride and goes round in a circle seven times turning the roller with him. The Kusvansī Ahīrs who are the latest immigrants

wear their turbans cocked so much on the side of the head as to touch the shoulder. The Mālis number 4500 persons or 2 per cent of the population and own 5 villages. They are scattered all over the open tracts of the District and are numerous in the Betūl and Pātan parganas. Most of the Mālis in Betūl belong to the Lonhāre subcaste and are immigrants from Berār, deriving their name from Lonār in Buldāna. They follow the Marāthā fashion in their dress and speak Marāthi. The Mālis are excellent cultivators and make much use of irrigation for growing vegetables. But their holdings are subdivided to an excessive degree owing to family dissensions; Mālis take a number of wives when they can get them in order to obtain their help in cultivation, and household quarrels are thus frequent. They are adepts at sugarcane cultivation and in villages with Māli tenants the rental is generally higher than elsewhere.[1] The Mālis consider it derogatory to grow flax or turmeric and those who do so are sometimes visited with at least temporary excommunication from caste. At their marriages the bride and bridegroom go seven times round a slab on which a stone roller is placed, with their clothes knotted together and holding in their hands a lighted lamp.

Teli and Kalār.

58. The Telis number 8000 persons or 3 per cent of the population and have 30 villages. Most of them have abandoned their traditional occupation of oil-pressing and taken to cultivation, though they still press oil from til and *jagnī* and from the fruit of the mahuā and *kāranj* (*Pongamia glabra*) trees. Many of them are petty traders and carry grain, oilseeds and jungle produce on pack-bullocks to the Berār plains, bringing back salt, cocoanuts and other articles in exchange. The Telis are mainly immigrants from the north, dressing in the Hindustāni fashion, and speaking Hindi. Only a few Yerandias or pressers of castor oil come from the south. The Mathā Telis are the traders and they will not accept water from a Brāhman or Baniā

1 Mr. Ramsay's Settlement Report, p. 40.

though they take it from a Kunbī or Gond. The Kalārs number 4000 persons and own 40 villages. These have usually been acquired from Gond mālguzārs in satisfaction of heavy bills for the supply of drink, while they have also made large profits by the purchase of teak timber from Gonds in return for liquor. Besides being distillers they cultivate land and are petty traders like the Telis. Before a Kalār wedding procession starts a ceremony known as marrying the well is performed. The mother or aunt of the bridegroom goes to the well and sits in the mouth with her legs hanging down inside it, and asks what the bridegroom will give her. He then goes round the well seven times, and a stick of *kāns* grass is thrown into it at each turn. Afterwards he promises the woman some handsome present and she returns to the house. Another explanation of the story is that the woman pretends to be overcome with grief at the bridegroom's departure and threatens to throw herself into the well unless he will give her something.

Gond.

59. The Gonds number 83,000 persons or 29 per cent of the population, and now own only 32 villages, having lost the greater part of their former estate. They are principally farm-servants and casual labourers, a Gond farm-servant being known as *jirāti*. Three-fourths of the whole number in the District are Rāj-Gonds, who are properly the land-holding subdivision of the tribe, but now include many others. The real Rāj-Gond professes Hinduism, wears the sacred thread and does not yoke cows to the plough as other Gonds do. The other groups found are the Gaikīs or Thothiās who are graziers and the Pardhāns and Ojhās or bards and minstrels. These two are considered as inferior to the Gonds proper and will take food at their hands, though the Gonds will not accept it from them. The Pardhāns are further divided into the Raj-Pardhāns who are supposed to be the descendants of the union of a Gond Rājā with his Pardhān minister's daughter, the Thothiās,

and the Gādas or Gadwās who are so called because they carry their drums about on carts (*gādi*). The Rāj-Pardhāns are allowed to enter the Deokhalās or Gond places of worship, but the others are excluded. There are also the Bhūtā and Bhumia Gonds who are beggars, dancers and conjurors and prostitute their women. The Gond *got* or exogamous group is called *pādi*, and the names they bear are totemistic, but one or two of them have curious stories. The members of the Etī Kumrā and Marrāpa *gots* say that they formerly used to sacrifice Brāhmans to their deities. *Etī* in Gondī means a goat, and they say that on one occasion, a Brāhman's son had been sacrificed and the father asked for his son from the Gonds, who deceived him by displaying the head and feet of a goat as the animal which had been sacrificed. They say therefore that the goat saved them from the father's vengeance and members of these groups will not eat goat's flesh. Another group is called Paiyām, which in Gondī means a heifer, this animal being regarded as the most suitable object of sacrifice to the gods. At the time when the gods were distributed among the Gonds, some getting seven, some six and others smaller numbers, which they still retain, one Gond took a heifer to the place of worship to sacrifice to the deity. But on arrival there the heifer gave birth to a calf, which so enraged the deity that he refused to give this Gond any gods at all. Consequently his descendants of the Paiyām *got* have no gods, and are considered as atheists by the other Gonds who usually refuse to intermarry with them. They marry among themselves, disregarding the exogamous rule of the *got*, and even allow brothers and sisters to marry. Marriage among the Gonds is usually adult, and matches are arranged by the parents, but occasionally a girl goes of her own accord and lives with a man who has taken her fancy, and this is recognised by the tribe. A bride-price amounting to about Rs. 30 in cash or grain is usually paid and they also have the custom of *lamjhanā* by which the suitor serves his

prospective bride's father for a period which is usually six years, but may extend to twelve, the marriage being then celebrated at the latter's expense. The Gonds are very fond of liquor and will do anything they can to obtain it. They are generally considered to be truthful but very unintelligent.

Korkū and Nāhal.

60 The Korkūs, a tribe belonging to the western part of the Sātpurā range and especially the Mahādeo hills, are strongly represented in Betūl, their number in 1901 being 24,000 or 8 per cent of the population. They own about 50 villages and are found almost entirely in the densely-wooded Saolīgarh pargana. Some of the Korkūs are industrious cultivators and grow rice, but the majority have the same happy-go-lucky, cheerful and indolent disposition as the Gonds. They have four subcastes, the Mowāsis and Bāwarias in a higher rank, and the Rūmas and Bondoyās in a lower one. The term Mowāsi means a resident of Mowās, the name given by the Marāthās to the Western Sātpurā hills and meaning 'the troubled country.' This is a reminiscence of the time when the Korkūs were notorious robbers and freebooters. Bāwaria means a resident of Bhanwargarh, a fort in the north of the District. Each subcaste has 36 exogamous septs which are generally named after trees and animals and are totemistic, but the Korkūs have as a rule forgotten the meaning of the names and except in one or two instances pay no reverence to their totems. One of these instances is that of the sept which is named *lobo* or cloth; but the word *lobo* also signifies 'to leak.' If anyone says a sentence containing the word *lobo* in either signification before a member of the sept while he is eating, he will immediately throw away the food before him as if it was contaminated. Ten of the septs consider the regular marriage of girls to be inauspicious and simply give away their daughters without the performance of any ceremony; but among the others several formalities precede the marriage,

at which the following curious custom obtains. The bridegroom is given a knife or a dagger with a lemon spiked on the blade to scare away evil spirits. The party then proceeds outside the village to a *ber* or wild plum tree and the boy and his parents sit under it. The Bhumkā or caste priest ties all three of them with a thread to the tree and a chicken is then offered to it in the name of the sun and moon whom the Korkūs consider to be their ultimate ancestors. The red fruit of the *ber* tree is possibly emblematic of the rising sun. Before the procession starts, the bridegroom and his elder brother's wife are made to stand on a blanket together and embrace each other seven times. This is possibly a survival of the old custom of polyandry, still existing among the Khonds, by which the younger brothers were allowed access to the elder brother's wife so long as they were still unmarried. And the ceremony may signify the cessation of this intercourse on the boy's marriage. On reaching the bride's village the progress of the wedding procession is barred by a leather thong stretched across the road by the bride's relatives, who have to receive a bribe of two pice each before it is allowed to pass. The marriage is consummated by an imitation of the *bhānwar* ceremony or walking round the sacred pole. Among the Korkūs a bride-price amounting to about Rs. 50 is paid, and if the girl is once betrothed the payment is due even in the event of her death before marriage, and her parents have a right to stop her burial until it is received. The Korkūs bury their dead, two pice being thrown into the grave to buy the site. No mourning is observed, but some days after the death the members of the family repair to the burial place carrying with them a piece of turmeric. This is cut up and placed in a leaf cup and water is poured on to it. A piece is then laid on the tomb and the remainder is tied up in a cloth and brought back and placed under the main beam of the house, which is the dwelling place of the ancestors. A second ceremony called the *sedolī* may be performed

at any time within 15 years of the death. Each sept has a separate place for its celebration, where a stake called *mūndā* is set up for everyone whose rites are individually consummated, while in the case of poor families one stake does for several persons. On the stake are carved likenesses of the sun and moon, a spider and a human ear, and a figure representing the principal person in whose honour it is put up on horse-back with weapons in his hand. For the performance of the ceremony the stake is taken to the house, where the little bag of turmeric previously deposited is opened. A goat is sacrificed and the stake and pieces of turmeric are besmeared with its blood. The stake is then erected in the ground, and the pieces of turmeric representing the souls of the ancestors are carried to a river, made into a ball, and allowed to sink, the Korkūs saying 'Ancestors find your home.' If there is any delay in the ball sinking they ascribe it to the difficulty experienced by the ancestors in the selection of a house and throw in two pice to assist them. After this ceremony the spirits of the ancestors are finally laid, but before it they may return at any time to vex the living. The Korkūs are well built and muscular, slightly taller than the Gonds, a shade darker and a good deal dirtier. They are in great request as farm-servants owing to their honesty and simplicity, and are as a rule very poor. The figures for Korkūs include 953 Nāhals who were classified at the census as a subtribe of Korkūs and are probably a mixture of this tribe and the Bhīls. They speak the Korkū language and the names of their septs are the same. The tribe are divided into the Korkū and the Marāthī Nāhals, the latter of whom are partly Hinduised. Their principal occupation is to collect the oil from the fruit of the *bhilawān* or marking-nut tree (*Semecarpus anacardium*). This oil has a peculiar smell and raises swellings on the body, besides staining the skin. When expressing it they wrap four layers of cloth round their fingers with ashes between each fold, and after finishing the day's work rub their whole

bodies with powdered tamarind and *ghī*. The *bhilawān* oil is a stimulant given to women after child-birth and to persons suffering from rheumatism.

Menial and criminal castes.

61. The castes considered as impure and not to be touched are the Mehrās (28,000), the Basors (800) or bamboo-workers, the Māngs (1000) who act as village musicians, the Kumhārs (1000) or potters, the Katias (1100) or spinners and weavers, the Dhobīs (1400) or washermen and the Chamārs (3000) or leather-workers. The Mehrās or Mahārs are the third caste in the District in numerical strength and form a tenth of the population. They are mostly immigrants from the Marāthā country and weave coarse cloth, while they are also menial servants and labourers, grass-cutters and beggars. Most of the kotwārs of the District belong to this caste, and the word kotwār has become almost synonymous with Mehrā, but it is a more respectable title, and a Mehrā if asked his name will usually answer kotwār. In some places it is said that the families who hold the office of village watchman form a separate sub-caste and marry among themselves. Dhed is a contemptuous name applied to the Mehrās by other castes. They have a great veneration for the cat and dog, which animals they swear by and may not kill. They are also much addicted to drink and are consequently talkative. The weaver Mehrās soon fail to make a living in bad times, and a saying about them is 'As the *beherā* fruit is nipped by the first frost, so is the Mehrā by the approach of famine.' Those who are kotwārs have acquired more thrifty habits and some of them lend money in a small way. Two villages are owned by members of the caste. The only classes with any special inclination to crime are the Pardhāns and Nāhals who are addicted to cattle-lifting and the Mehrās and Gonds who commit most of the ordinary thefts. Gonds and Bhoyars are said to be more frequently convicted for murder than other castes. The Kolābhūti Gond women are professional prostitutes.

SOCIAL LIFE AND CUSTOMS.

Marriage.

62. Marriages are generally celebrated when both boy and girl are fairly young, and the ordinary rule is that a girl should be married before attaining the period of adolescence. As a rule no price is paid by the bride's or bridegroom's family and the acceptance of money in such a case is considered derogatory. Women do not usually accompany the wedding procession. Among the Hindustāni castes the *bhānwar* ceremony or walking round the sacred pole is gone through. Seven earthen pots are placed in a row with the pole in the centre and the bride and bridegroom walk seven times round these with their clothes knotted together, one pot being removed at each perambulation. The Marāthā castes perform the marriage by knocking the heads of the couple together and throwing rice coloured with vermilion over them. A quaint custom among the northern castes is the following :—The bride and bridegroom go to a river to worship Ghatoiā, the god of river crossings. On the way to the river the bridegroom takes a thin stick and runs after the bride beating her ; but on the way back the bride takes the stick and runs after the bridegroom beating him and saying 'All my life you will beat me ; to-day I shall beat you.' Among several castes on the occasion of the betrothal the fathers of the parties sit together and each takes a piece of sugar and puts it into the other's mouth saying as they do so 'Is the sugar or our relationship the sweeter ?' Among the Sonārs the mother of the bride ties the mother of the bridegroom to a pole with a tethering rope and beats her with a twisted piece of cloth until the bridegroom's mother gives her some money or cloth as the price of her release. This probably typifies the anger of the girl's mother at being deprived of her daughter. At the end of a Raghuvansī's marriage a curtain is strung up across the shed and the women of the household stand on one side and the men of

the bridegroom's party on the other. Each man in turn goes up to the curtain and throws some red powder over it at the women and as his head and hands appear above the curtain they belabour him with a stick. Finally the curtain is torn down and the women rush at the men and throw powder over them and also besmear their faces with turmeric. Instead of powder the Gond men and women of the wedding party throw mud over each other at the conclusicn of a marriage until they are all covered with mud. The bride does not go to live with her husband after the marriage unless she is adult, and in other cases the *gaunā* or going-away ceremony is performed in the first or third year after marriage, the husband coming to fetch his bride accompanied by some relatives, and being given a feast and a present of some clothes and vessels. All castes except Brāhmans, Rājputs and Baniās permit widows to remarry and the Raghuvansī Rājputs and the Saitwāl Baniās also allcw it. On the other hand the Sriwāstab Darzıs have forbidden the practice. Widow-marriage is called *pāt* and the ceremony is performed on a night of the dark fortnight, no women except widows being present. It is considered suitable that the deceased husband's younger brother should marry the widow.

Customs at birth.

63. The Māng women act as midwives and are in attendance for six days after a birth. On the sixth day the mother and child are bathed and the caste people are fed, and the place of the Māngin as attendant is taken by the barber's wife. This is called the *chhatī* ceremony. On the 12th day comes the *bārsa* ceremony when the mother and child are again bathed in warm water, the relatives are feasted and the child is named by the elder women in consultation. Or sometimes the Joshi or astrologer names the child and is given two pice. When a Gond or Korkū dies, the relatives often make a mark with oil or lamp-black on some part of the body, and if a child is subsequently born bearing some sort of mark in

about the same place, they say that the dead person is reincarnated in the child, which is accordingly given the same name. If delivery is delayed one method of facilitating it is to untwist a twisted cord in front of the mother, with the idea that as the cord is untwisted so will the delivery become direct and easy. Or she is given to drink water in which a gun-barrel or a meteoric stone has been steeped, these articles being productive of strength, or perhaps having the quality of rapid discharge. A woman with child must not witness a solar or lunar eclipse because if she does so the child may be born with defective limbs like the sun or moon when eclipsed. She must not cut vegetables at the time of an eclipse lest the child in her womb should be similarly cut. She must not cross over the tethering ropes where a horse is tethered lest the period of her pregnancy should be lengthened as mares are twelve months in foal. In order to get children a barren woman will sometimes procure some of the hair of one who is fertile and bury it beneath her bathing-stone.

Customs at death.

64. When a man is at the point of death a gift of a cow should be made on his behalf to the Joshi or Brāhman priest of the village, in order that he may be able by clinging on to the cow's tail to cross the horrible river Vaitarnī, the Hindu Styx, which bars the entrance to heaven. If the family cannot afford a cow a model of one is made in clay and given instead. The corpse is, if possible, burnt by the side of a river or tank so that the funeral party may bathe after the cremation, but if this is impracticable it is burnt by the side of a well. Among the Bhoyars, Kunbīs, Kirārs and others the funeral party cook and take their food on the site after the body has been burnt and will not return without doing so. The ashes are collected and thrown into water on the third day, or in the case of well-to-do families taken to the Nerbudda, Tāpti or Ganges. In some cases the mourners chew the leaves of the *ber* tree (*Zizyphus jujuba*) in order to establish *bair* or enmity

between themselves and the dead person so that his spirit may not return and trouble them, the efficacy of the process apparently arising from the pun on the name of the tree. Or they pluck some twigs of the tree and place them under a stone to serve as a fence or barrier between the living and the departed spirit. The corpse of a leper is either buried or thrown into deep water and is not burnt, this being a perverted sanitary precaution, as it is feared that the smoke of the funeral pyre would carry infection to the living. The Gonds and Korkūs usually bury their dead, as cremation is expensive and is an honour reserved for respected elders. The advantage of burning the body is of course that the risk of its being dug up and devoured by wild animals is obviated. Some time after the death, the family take two baskets and place a chicken beneath one and some grains or flour of wheat under the other and the chief mourner then exclaims 'I do the work of that old man who died. Oh spirit of the dead, I offer a chicken to you to-day ; be propitious and I will perform your funeral rites to-morrow.' On the next day the baskets are lifted up and if they imagine that the grains of corn make a pattern like the foot or claw of any animal, they think that the departed spirit will be reborn as the young of that animal. The chicken and corn and various other articles are then taken away and deposited outside the village and a feast is given to the members of the tribe. Another curious ceremony called *artī* which involves the sacrifice of a cow, is also sometimes performed. During the night a lamp is waved in front of the cow and she is killed before sunrise. In the evening the whole community proceed to the burial ground, and when they arrive there the spirit of the dead man is supposed to enter into one of them and proclaim the cause of his death and also the place where the cow's head should be buried. This having been done, an earthen platform is made on the site, and a stone placed on it and besprinkled with the blood of a chicken by the family of the deceased. The whole party then return and have a

feast. The soul of the dead is subsequently brought back to the house by the usual method of suspending a copper ring by a thread and waiting till it falls into water. These ceremonies are not performed for an unmarried boy or girl. When a man has been killed by a wild animal no mourning is observed but the following ritual is gone through to prevent his spirit from annoying the living. The Bhumkā takes all the members of the family with him to the place where the death occurred and makes them sit in a circle. He then brings five stakes of the *tendū* tree (*Diospyros tomentosa*), each 2½ cubits long, plants them in the ground round the people, and winds a thread seven times round the stakes. A hole is dug in the ground and in it the heads and legs of a pig and hen, and cloves, cardamoms, seven bangles, and some red thread and red lead are placed, and the ground being filled in, stones are piled over the site to prevent the things being dug up by wild animals. Then all the people come out of the magic circle, bathe and return home without looking behind them, while the Bhumkā and members of the *panchāyat* proceed to a stream and cook and eat the bodies of the animals which have been sacrificed. Some days after this the Bhumkā sacrifices a goat anointed with turmeric to the deities and the family are then readmitted into caste intercourse.

Villages.

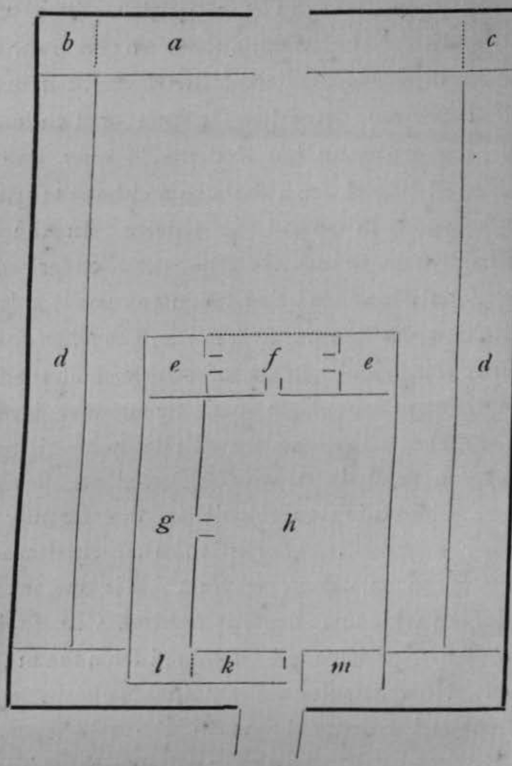
65. The villages are usually situated on high ground with good natural drainage and are often built in two straight lines of houses with a wide road between them. At the backs and sides of the houses are little *bāris* or gardens in which maize, tobacco and vegetables are grown. The village is often divided into two or three quarters called *dhānās* inhabited by members of different castes. The Gonds and Mehrās usually live in a quarter of their own, separate from the main village. The mukaddam or his agent is responsible for the proper cleanliness of the village, but he does not do much in this respect. Once a year at the time of Diwāli, the people

clean their houses and gardens. But they clean the front portions of their houses every day and deposit the rubbish and cowdung on a heap in the garden. The village usually depends for its water-supply on one or more wells situated in low-lying land at a distance from the houses. If there are several wells one or two are set apart for the impure castes, but if there is only one they are sometimes debarred from its use and have to get their water from holes dug in the bed of a stream. In the forest villages considerable difficulty is frequently experienced in getting water, but steps are being taken to remedy this state of things. Temples are rarely seen and the village deities are usually represented by heaps of stones. The principal village officer is the mukaddam or his agent who is known as Police Patel by the people. The patwāri acts as a legal adviser and is always referred to by any one who has an application to submit to the Deputy Commissioner or tahsīldār. Owing to the unpopularity of education the schoolmaster, where there is one, is regarded by the villagers with some hostility. Most villages have no Baniā and supplies have to be obtained from the mukaddam on payment. No vegetables are obtainable except pumpkins in the rains and country beans in the cold weather, and in most villages earthen pots cannot be purchased and brass ones must be borrowed for use.

Houses.

66. A village usually contains two or three fairly large and elaborate houses belonging to the mālguzār or to well-to-do cultivators, these buildings being provided with wooden doors and shutters. The poorer cultivators and labourers have single-roomed huts in which they eat and sleep with front and back verandas. The back veranda serves as a cattle-shed and the front one, which is kept neat and tidy, is used as a second room. These huts have often no doors and the doorways are filled with bamboo matting only. The houses are usually tiled in the open country and thatched in the forest tracts. The

house of a well-to-do mālguzār may be constructed according to the following plan :—



The width of the enclosure is from 40 to 60 feet and its length about 100 feet. The outer walls are usually of earth and less frequently of brick. Inside the entrance at *a* is the *baithak* or *deorhī*, the room for the reception of visitors. This will contain some strips of thick cotton cloth or hemp sacking on which to sit. At *b* is a small room in which light agricultural implements are kept, while *c* is the *bandā* or room for storing grain. The floor and walls are plastered with straw and over this the large leaves of the *māhul* creeper (*Bauhinia Vahlii*) are spread. Different kinds of grain are kept with leaves or straw spread between them, or if there is a large quantity the *bandā* may be divided into partitions with

thin walls of brick. Along the sides at *d*, are open sheds used for keeping cattle, and the ploughs and other heavy implements and for storing grain. The dwelling house proper is situated at the back of the enclosure as shown, *f* being the front veranda called *chhaprī* or *usāri* in which the men of the house will sleep, while two small rooms are enclosed as shown at *e*, for storing treasure and other valuables and food. At *h*, is the large inside room called *maj-ghar* or the middle house, in which the women sleep, while *g*, is another small room to hold the grain required for consumption. The back veranda at *k*, is employed for cooking and bathing, the small room at *l*, being the kitchen called *rasoi kī jāga*, and that at *m*, an open room forming the bathing place. In the open space at the back maize or vegetables are grown, and the back wall usually contains a gateway large enough to admit a cart, which is used for bringing in fuel and grass and for ingress and egress by the women. The house is often two-storied and in that case there is a sleeping-room on the upper floor. The timbers usually employed in constructing a house are teak, *sāj* (*Terminalia tomentosa*), *harrā* (*Terminalia Chebula*) and *jāmun* (*Eugenia Jambolana*). The mango and mahuā also afford good timber, but the trees are too valuable to be cut down, except when they have ceased to bear fruit. The inner walls are of bamboos plastered with mud and the roof is formed by beams of teakwood overlaid with bamboos and tiles. Such a house would cost Rs. 500 to Rs. 1000 to construct, but the mālguzār gets a large proportion of the materials and labour free of cost. A house generally faces to the north or east and never to the south, because Yama, the god of death, lives in that direction. It is of course undesirable for any house to face southwards, as in this direction the front is most exposed to the heat of the sun, and it is possible that the superstition has been devised to afford a religious sanction for a custom easily explicable on grounds of general utility, as has occurred in several other cases, and notably in

the prohibition of the slaughter of cattle. Similarly nobody sleeps with his feet pointing to the south, because corpses are usually buried in this position. In Betūl the south is called Berār *bāju* and the north Mahādeo *bāju*, because Mahādeo's shrine at Pachmarhī lies in that direction. The house of a substantial tenant has usually no interior compound and consists of a central and two small side-rooms with front and back verandas. The walls are of plastered earth and the beams of *sāj* or *babūl*, very few tenants being able to obtain teakwood at present. In the side-rooms are *kothīs* or large bottle-shaped receptacles of earth for holding grain. When filled, the tops of these are closed and holes are made at the bottom from which the grain is allowed to flow out as required. A good tenant sometimes has a cattle-stall in front of his house, but otherwise keeps his cattle in the veranda and this is also the custom of the poorer cultivators who have only single-roomed huts like a labourer's. A good tenant's house may be worth about Rs. 50.

Furniture.

67. Of furniture in the English sense there is very little. A mālguzār will have a row of pegs to hold clothes, a few stools two or three inches high on which to sit while taking food, a sleeping cot for each person in the family, the bedding and the cooking and eating vessels. Bedding consists of a cotton carpet, a mattress, a quilt stuffed with cotton, and a sheet and a pillow for each member of the family. The poor have only blankets and mattresses made of layers of old cloth stitched together, which are never properly washed and become abominably dirty. A wooden log serves as a pillow and can also be used as a seat for entertaining guests. In the bathing-room is a large flat stone on which to stand or sit while washing and a *gangāl* or capacious water-vessel of brass. The cooking utensils are of iron and brass and those for eating and drinking of brass. A rich mālguzār will keep a stock of vessels two or three times as large as is required for the needs of his family, and these will be utilised at

festivals and marriages and are also lent to his poorer relations. Earthen pots are largely used both for cooking and boiling water and for keeping milk, curds and *ghī*. These are thrown away if touched by anyone of another caste or if the house has been broken into or a death occurs, and cost very little to replace.

Food.

68. Most people eat twice a day, the first meal being taken after bathing shortly before mid-day and the second between 6 and 8 P.M. Even cultivators who work in the fields do not usually take food before going out, but have their first meal brought to them in the fields at 10 or 11 A.M. Mālguzārs eat *chapātis* of wheat and juār and pulse of masūr, arhar, mūng and urad. The pulse is boiled in water and when the grain is soft, chillies, salt and turmeric are added. Pieces of the *chapātis* are then broken off, dipped into the hot mixture and eaten. The country vegetables are also eaten when in season and boiled kodon and kutkī afford a change of diet. Rice is eaten at festivals or when a guest is to be entertained. Milk is given to children and only occasionally to adults, the bulk of the supply being required for the manufacture of *ghī*. A favourite food for the evening meal is called *besin*. Til or linseed oil is heated in a frying-pan, and first mustard, spices, garlic and onions are added and subsequently gram flour mixed with salt, chillies and turmeric, the whole mixture being afterwards cooked into a thick paste and eaten hot, with boiled rice or *chapātis*. Tenants usually cannot afford wheat and they eat the inferior grains. The poorer ones grind unhusked kodon and kutkī to flour and make it into *chapātis* mixed with the flour of juār and urad. Wheat is eaten on holidays and for a short time after the crop is reaped. The most expensive food of farm-servants is juār, and if they cannot afford this they eat *pej*, a thin gruel made by boiling one or two pounds of grain in a potful of water. This is taken out to the fields and they sit round the pot, and ladling out the liquid with a hollow gourd drink it out of

leaf cups. Chillies, salt and curds are added to it when available to give a relish. To make the meal a little more substantial mahuā flowers, parched by shaking them up in an earthen pot with hot embers and ashes, are eaten after the *pej*. In the evening they eat boiled kodon and kutkī and *chapātis* of *belhar* or country beans, which are a very favourite food, the crop ripening in the cold weather. In times of scarcity labourers eat the young leaves of the tamarind tree, fresh bamboo shoots and various other leaves and roots.

Dress.

69. The clothes commonly worn present no special points of interest, but it may be noted that in the north of the District the women wear shoulder-cloths and skirts as is the fashion among the castes of Hindustān, while in the south the Marāthā custom of wearing the single long cloth or *sāri* folding over the shoulders and drawn through the legs prevails. Here also a patch of red lead is rubbed on the forehead in place of a spangle and the *cholī* or breast-cloth buttoning in front is used, instead of the *angia* which buttons behind. *Pagrīs* have been discarded and short *dupattās* of white cloth or tasar silk are usually worn as head-coverings. The Marāthā Brāhmans, however, wear a red *pagrī* for occasions of ceremony peaked at the top and with a roll in front, and no other caste wears them thus folded. Tenants usually wear country hand-woven cloth and for women the *sāris* produced in Mowār find a large sale. Gond and Korkū women wear white loin-cloths with red borders, dragged up between their knees so as to expose the greater part of the thigh. The men have a white loin-cloth with several folds of red cotton thread tied round the waist, and a small piece of cloth like a towel about the head and sometimes a blanket. In the thread waist-belt they keep a flint and a piece of iron and some cotton waste for getting a light. Those of them who can afford a *dupattā* for the head, keep in it a small mirror, a comb and a *chilam* or pipe-bowl. Poor labourers

who cannot afford a blanket carry in the rains a small circular screen like an umbrella made of leaves of the date-palm or *māhul* creeper and support it on their heads.

Ornaments, hair, etc.

70. The ornaments worn by women differ in the north and south of the District in the same manner as the clothes. Among men the fashion of wearing jewellery is falling into disuse. The Gond and Korkū women are loaded with brass and pewter ornaments and are very fond of having *pots* or necklaces with several strands of glass beads of different colours. The men wear smaller necklaces of beads and one or two rings of brass or iron on the finger. Cultivators generally wear low shoes called *chadhau* without flaps, which cost 8 annas to a rupee a pair, while the women who work in the fields have *wāhna* or sandals. Men are shaved once every 7 or 15 days. If they wear their hair the barber shaves it round the edges, usually at the line made by the head-cloth. Muhammadans do not wear the *chotī* or scalp-lock, but all Hindus have it except Gosains. Marāthā Brāhmans generally shave their head and chin, retaining the moustaches and a scalp-lock which should theoretically be as long as a cow's tail. Hindus usually shave their moustaches when their father or mother dies, but not otherwise. Muhammadans have a short close-cut moustache which is not wetted when they drink water, as the water would in that case be considered impure, and sometimes they wear no moustaches at all. They nearly always wear beards, but among Hindus these are not much affected except by the Marāthā caste. When a Muhammadan wears a beard he must have hair in the centre of his chin whereas a Hindu shaves this part. The barber uses cold water in summer and hot in winter, but no soap. In the case of tenants the barber does a rapid scrape and this process is called *asūdhal* or 'a tearful shave,' because the person undergoing it is often constrained to weep. After being shaved a man rubs tillī oil over his head and body and then bathes, and afterwards rubs himself with

scented oil if he can afford it. Most people in Betūl use hot water for bathing. A man must bathe after he is shaved or he is considered impure and he should not eat, drink or touch anything in the interval. The vessel or glass in which water was given to the barber must be cleaned and the place where he sat swept and sprinkled.

Amusements.

71. The people have the same amusements as elsewhere and several kinds of dances are practised in the District. That called *dhandhār* is performed by the Kunbīs, Telis, Mālis and other castes on the fifth day after the Diwāli festival. They erect a shed or pavilion and the men stand in a line and dance to music, moving backwards, forwards and sideways and singing erotic songs. Each man holds two sticks in his hand and beats them together in time to the music. Liquor flows freely and the proceedings last the whole night, being witnessed by a crowd collected from the surrounding villages. After the dance is over one or two young men dress up as women and some buffoonery is enacted. *Madai* is an amusement of the Ahirs at the Diwāli. They put on a fantastic dress wearing peacock's feathers in their head-cloths and also on their arms and shoulders, and hang strings of cowries round their necks and on their feet wear hollow brass anklets filled with pebbles to make them rattle. Thus attired they go round to the houses of well-to-do persons drinking and dancing and singing obscene songs. They also visit the weekly markets held in the vicinity. The favourite dance of the Gonds is called *karmā*. Both men and women take part in it, making two rows opposite each other, while the musicians, playing on a sort of drum called *timkī*, sit in the middle. The dance is a graceful and regular one with measured steps and is very correctly performed, though they go on the whole night with intervals for drinking. While they dance they sing obscene love songs, one line answering the other. The drums can be heard for miles around and the people collect eagerly to watch the dances. When reli-

giously disposed the men of the village go in a procession to the temple singing *bhajans* or sacred songs to the accompaniment of drums and cymbals. This practice, called *dindī*, usually takes place in the month of Kārtik (October-November) preparatory to the sowing of the spring crops, and much religious fervour is produced by the effect of the singing. Sometimes a special performance called *saptāh* takes place, so named because the singing goes on for seven days and nights without a break, the singers and players relieving each other when tired. The performance is designed to avert some special calamity and is carried out with great enthusiasm, all castes participating. The game of *jerī* or climbing the greasy pole takes place immediately after the Holī festival, Gonds being the chief performers. A pole is erected and a bag of sugar and R. 1-4-0 in cash are tied to the top of it. The women collect round the pole with long bamboo sticks in their hands and the men stand opposite them and every now and then one of them makes a dash for the pole supported by the others, while the women rain blows on the party to keep them off. Great merriment is excited, and though the beating frequently draws blood, nobody minds, the game being preceded by numerous drinks. Weakly men do not take part in it. If one of the men finally climbs the pole he takes the reward and divides it among his fellows, and if nobody can do so the women take it. The prize is given by the mālguzār or other wealthy person and the people of all the surrounding villages collect to see the fun. During Shrāwan (July-August) the children walk on stilts and play with *chakrīs* or little grooved wheels of wood and brass to which a long string is secured and wound and unwound by throwing the wheel from the hand into the air and drawing it in again. At this time also the children play on *bānsurīs* or wooden flutes and the girls sing songs which are especially appropriate to the season.

LEADING FAMILIES.

Castes of proprietors, Brāhman families.

72. The most important families of long standing in the District belong to the Brāhman and Kurmī castes, and there is one old Korkū house which has lost a part of its possessions. But as in other Districts the wealthiest proprietors at present are Baniās. The Kunbīs and Kurmīs own 280 villages and are the principal land-holding castes, and next to them come Brāhmans with more than 200 villages, Baniās with 170 and Rājputs with 130, while Korkūs, Bhoyars and Muhammadans hold something under 50 each. The families of most position in the District at present are the Kurmī proprietors of Betūl, Rai Sāhib Seth Sundar Lāl Dhūsar Baniā of Multai, the Deshmukhs of Bhainsdehī, Rao Sāhib Sītārām Bhoyar of Aonria and the Korkū family of Chāndu. The oldest Brāhman family are the Deshmukhs of Barkhed who now reside in Multai. They say that they came to the Province at the invitation of Rājā Jaitpāl of Kherlā who lived in the 13th century. They settled down at Deogarh in Chhindwāra and emigrated to Betūl when Deogarh fell into the hands of the Marāthās in the middle of the 18th century. The family is now split up into two branches owning eight villages each. They are the heads of the local Mālwī Brāhmans. Another important family of Hindustāni Brāhmans are the Kanaujias of Shāhpur. They belonged to the Unao District and entered the service of the Bhonsla Rājā. In 1865 the then head of the family got the grant of the Shāhpur estate of 52 villages which had previously belonged to the Kurmī family of Betūl, through a questionable award of the Settlement Officer. There are at present two representatives, Shyām Lāl and Rikhīrām who have 26 villages each and are both slightly indebted. The Kanaujia family of Kesia have 9 villages. The present representative is a woman, and during her minority the estate was managed by the Court of Wards and was relinquished on her marriage. Among

Marāthā Brāhmans the family called the Dharmādhikāris of Multai are the most important. The meaning of the family name is that they were formerly the representatives in matters of religion of the Marāthā community. The present heads of the family are two old men, both with some Sanskrit learning. They hold 10 villages each. The family are well educated and three of the younger members have taken degrees in law. They enjoy a grant of land free of revenue which was made by Raghujī Bhonsla. The Deshmukhs of Māsod are another family of Marāthā Brāhmans who have practically lost their estate. The Marāthā Brāhman family of Deogaon came to Betūl about a century ago and became proprietors of 32 villages in the Rānīpur tract which they subsequently reliquished again, as being unprofitable. The present representative Nārāyan Rao owns five villages and is a good agriculturist. A family of Bengali Brāhmans, who were formerly in the service of the British Commissariat, received a grant of two villages, Hīwarkhedā and another, from the British Resident, which they still own.

Baniā landlords.

73. The most important Baniā family is that of Rai Sāhib Seth Sundar Lāl of Multai, belonging to the Dhūsar subcaste, who claim to be Bhārgava Brāhmans. The family came originally from the Punjab, their home being at Rewādi where the head of the firm resides, while the moneylending business at Multai and the management of 75 villages belonging to him is carried on by agents. The firm is known locally as the Barī Dūkān. The founder was a tahsīldār in government service who after retirement made money in the opium trade. The firm have held the appointment of District treasurer for more than a quarter of a century. Next in importance to the Multai firm is that of Seth Lakshmī Chand of Badnūr, an Oswāl Baniā. The firm was founded by his grandfather who came from Jodhpur seventy years ago and also laid the foundation of his fortune by trading in opium. Seth Lakshmī Chand owns more than 20 whole villages and shares in 30

others, a great part of this property having been acquired since the famines. His firm has also an extensive moneylending connection and deals in bullion. Another Oswāl Baniā firm is that of Seth Mānik Chand of Badnūr who owns 4 villages and shares in 16 others. Seth Sundar Lāl remitted a large sum to his debtors in the conciliation proceedings and the other two firms relinquished small amounts.

Kurmī and Kunbī proprietors.

74. The Kurmī proprietors of Betūl hold the first seat in the District Darbār. The founder of the family Mihī Lāl, came from the Unao District at the end of the 18th century and entered the service of the Bhonsla Rājās of Nāgpur. One of his sons accompanied Colonel (Sir John) Adams during the whole of the campaign against the Pindāris and the pursuit of Appa Sāhib, and rendered valuable services, for which the family were held in high esteem by British officers. At the 20 years' settlement in 1837 they were in possession of the *tāluka* of Shāhpur consisting of 73 villages. In 1857, however, some members of the family were charged with endeavouring to incite disaffection and their property was declared to be forfeited, the Shāhpur estate being settled with the Kanaujia Brāhman family already mentioned. There is some evidence to support their contention that the charge was unwarranted. They now hold nine villages and their senior representative, Sītārām, has the right of a private interview with the Chief Commissioner. Another Dholewār Kurmī family is that of Badorā near Badnūr, whose representative Motī Lāl has done much good work in local administration and takes a great interest in agriculture. He holds shares in 15 villages. The leading Kunbī family of the District is that of the Deshmukhs of Bhainsdehī. According to their own account they settled in the District in the reign of the Emperor Aurangzeb and were granted the hereditary office of Deshmukh of the parganas of Atner, Satner, and Bhainsdehī. They have a *sanad* at present in their possession

bearing the joint seals of the Emperor Muhammad Shāh and of Raghujī I as his lieutenant. Shortly after their settlement in Betūl the colonists began to be harassed by robbers and the road to Berār became unsafe. The Deshmukh of the time built a number of mud forts and provided each of them with a garrison of 100 men for the protection of the road. He cleared the country of robbers and as a reward for his services was given the title of Haibat Rao which the family still bear, the word *haibat* meaning terror. Under the Marāthās the Deshmukhs of Bhainsdehī conducted the revenue and judicial administration of the three parganas already mentioned. At present the Deshmukh is the recognised head of the Marāthā Kunbīs of the District and the adjoining parts of Berār, and has much influence over them, his decision being accepted as final in all caste disputes. The estate originally consisted of 72 villages, but of these only 10 are now in the possession of the family. Another important Kunbī family is that of Baghorā in the Multai tahsīl, which is split up into two branches. The proprietors of Baghorā hold 11 villages and shares in a number of others, and the second branch, now represented by two widows, holds six villages. The family are Tirole Kunbīs. The Kunbī families of Bākur and Jhallār have also considerable estates.

Other families.

75. The Korkū family of Chāndu formerly owned a large estate called by the generic term of Chaurāsi, but consisting of 87 villages. The founder of the family came from Hoshangābād and settled at Chāndu about two centuries ago. The family have split up into several branches and by entrusting their affairs to dishonest agents and displaying the improvidence commonly found among landholders of the primitive tribes have lost a great part of their estate. Out of four divisions of the family, two having their headquarters at Chāndu, one at Kund and one at Jaorā, one of the Chāndu branches has practically lost its estate, while the debts of the other have

been to some extent settled under the conciliation proceedings and with care it could extricate itself. The estate of the Kund family is under Court of Wards management and its debts have almost been liquidated. That of the Jaorā family has also been taken under the Court of Wards and a large proportion of it made over to the creditors in liquidation of debt. Among the Rājputs the most notable family is that of the Killedārs of Bhainsdehī. Their founder Sanmān Singh came from Rāe Barelī and took service under the Nāgpur Rājās. He made a brave attempt to defend the fort of Gāwīlgarh against Sir A. Wellesley's army. The family is losing its position owing to frequent partitions of the property. One representative Gurdayāl Singh has no villages of his own, while the other Mahipāl Singh of Chhapria owns 10 villages and shares in 4 others. The head of the Bhoyar caste in the District is Rao Sāhib Sītārām Patel of Aonria whose estate consists of 8 villages and shares in about 30 others. He is an excellent agriculturist and a good landlord as is shown by the fact that he remitted more than 1½ lakhs in the conciliation proceedings. The principal Muhammadan proprietors are the brothers Salā-ud-dīn and Alā-ud-dīn of Multai. They own about 11 villages and are connected with the old Muhammadan families of Chhindwāra and Seonī.

CHAPTER IV.

AGRICULTURE.

(BY L. E. P. GASKIN.)

SOILS.

76. The District contains no large tracts of soil of a uniform quality. The plateau country consists of broad open valleys fringed here and there with low, rolling, stony hills. In the broken country on the edges of the District the valleys contract, the slopes of the hills grow steeper and the light and stony soils of which they are composed form a larger proportion of the village area. Thus nearly every village on the plateau contains soils of widely different qualities, from the rich wheat land to the poor *bardī* which grows millets and oilseeds with frequent fallows. On the other hand, the villages in the hilly country generally contain patches of fairly good black soil and at the worst some which is capable of growing gram and other pulses. An exception to the above remarks may be made in favour of two tracts, the first consisting of some 50 or 60 villages round Betūl and the other of some twenty villages on the south bank of the Bel; both of these consist entirely of black soil. For the purposes of assessment there are three broad factors to be considered:—first, the class of cultivation for which the land is suited; secondly, the kind of soil judged by its physical characteristics; and thirdly, the differences of position which affect its productiveness. Under the first head land was classed as (1) *gohāri* (capable of growing wheat); (2) *sāntābāri* (sugarcane land); (3) *tarkāri* or *phūlbāri* (vegetable or fruit land); and (4) *mutfarikāt* (minor crop land). Under the second head the following soils were recognised.

General notice.

77. The term *kāli* is applied by the people to all low-lying black soil, but for assessment purposes its meaning has been restricted, and in

Kāli.

official records the term denotes a black or dark-brown clay soil of great depth. It is distinguished from *morand* by being less friable and heavier, bulk for bulk; it also cracks to a greater extent. It corresponds to the rich black alluvial soil of the Nerbudda valley. The District contains none of the very best soil of this class and what exists is classed as *kāli* II. The area even of this is inconsiderable and amounts to only one per cent of the area under cultivation. This soil is of great fertility. It grows the finest sugarcane crops and will produce good crops of wheat year after year without rotation and without manure.

Morand.

78. *Morand* is a friable loam varying in colour from black to brown. It often contains a considerable admixture of black stones in the trap country and of sand in the sandstone country. Everywhere it contains a certain proportion of lime nodules. It does not run to any great depth, 10 feet being the maximum, and in places it is as shallow as 2 feet. It has been divided into two classes. *Morand* II is distinguished from *morand* I by want of depth, lightness of colour and a larger proportion of stones, sand and lime. The two classes together form the great proportion of the *rabi* area, accounting for 26 per cent of the land under cultivation. This soil will grow all kinds of crops, the more valuable as wheat and sugarcane and the inferior millets, oilseeds and *san*-hemp.

Mutbarrā.

79. *Mutbarrā* corresponds to the local *bhabar*. The name does not denote a distinct class of soil. It is applied (1) to black soil not more than a foot in depth, and (2) to soil in the trap country not capable of growing *rabi* but better than *bardī*. Both classes are generally found between *morand* and *bardī*, the first class contiguous to *morand* and the second to *bardī*. The best *mutbarrā* will grow wheat in rotation with gram and masūr. The second class will grow juār and oilseeds and millets, and one test of its superiority over *bardī* is the frequency with which it is necessary to give it a rest.

80. *Bardī* is generally a red gravel thickly strewn with reddish stones of a fair size. But sometimes it is almost free of stones and at others full of yellow flints. In addition there is a poor ash-coloured soil, soft but shallow, which is found in small patches along the southern *ghāts*, and this is also classed as *bardī*. This soil will grow juār and til in rotation with the minor millets and *jagnī*, but it is easily exhausted and requires frequent fallows. It is sometimes left fallow for as long as five years, but three years cropping and three years rest is a fair average. It is the poorest kind of soil in the trap country. It forms, however, no less than 39 per cent of the area under cultivation.

Bardī

81. In the sandy villages *mutbarrā* and *bardī* are replaced by *sihār* and *retāri*. *Sihār* is a sandy loam found along the banks of small streams and at the edge of *morand*. At its best it will grow wheat and at its worst juār, gram and til. It is well suited for irrigation and in the villages north of the Bel it grows sugarcane. *Retāri* includes all sandy soil poorer than *sihār*. It grows nothing better than kodon, kutkī and *jagnī*. In the Tawā valley there is a soil locally known as *thotar*; this is a sandy loam inferior to *sihār* but better than *retāri* and it has been classed as *sihār* II. It will grow til but not juār or gram. *Sihār* and *retāri* each form 8 per cent of the area under cultivation. *Kachhār* or alluvial land occupies only 27 acres and does not require a detailed description. The above statistics show how large a proportion of the cultivated area is occupied by inferior soils. *Bardī* alone takes up 39 per cent and *mutbarrā*, *sihār* and *retāri* together 34 per cent of the cultivated area.

Sihār and retāri.

82. Differences of position form the third main factor; they are not taken into account in the case of all classes of land. One position known as *geunrā* is common to all classes. This term denotes the land in close proximity to the

Position classes.

village site and receiving drainage from it. *Abpāshi*, meaning irrigated, is applied to the first three main divisions, that is to say, wheat, sugarcane, and vegetable and fruit land. Other varieties of position are taken into account in the case of wheat land only. The terms used for these are *dol* or low-lying and retaining moisture; *bandhān* or *bandhia*, embanked ; *tagar* high-lying and sloping; *bharkīla* cut up by nullahs, and *kohlī* liable to damage by wild animals. The first two are advantageous and the rest disadvantageous positions. The normal position is known as *māmūlī*. The area in cultivation is constituted as follows :—Wheat land 29 per cent of the total, sugarcane land 3 per cent, garden land 2 per cent, and minor crop land 66 per cent. Of the wheat land, 25 per cent is composed of good soils, *kāli* II and *morand* I, and the rest of the poorer *morand* II, *mutbarrā* and *sihār*. Land classed as advantageous on account of its position takes up 2 per cent of the wheat area and land classed as disadvantageous 19 per cent, while the remainder is in the ordinary position. Of the minor crop land 28 per cent consists of the superior *kharīf* soils *morand*, *mutbarrā* and *sihār* and 72 per cent of the inferior ones, *sihār* II, *bardī* and *retāri*.

Soil factors.

83. An arbitrary factor of 32 was adopted for the soil known as *morand* I *māmūli* and the main variations caused by differences in class and soil are shown in the table below :—

Soil.		Wheat land.	Minor crop land.	Sugar and garden land irrigated.	Unirrigated vegetable land.
Kachhār	...	40	...	65	40
Kāli II	...	36	20	65	34
Morand I	...	32	20	65	34
Morand II	...	24	14	55	24
Mutbarrā	...	16	8	45	16
Sihār	...	14	8	45	16
Bardī	...	...	4	...	8
Retāri	...	...	3	...	8

In addition considerable variations from the above were introduced to allow for differences in position. To allow for the advantages of the position *geunrā*, percentages varying from 9 in the case of the best sugarcane land to 100 in that of the poorest minor crop land were added. The highest factors adopted to allow for this position were sugarcane 70, wheat 54, fruit and vegetables 54, and minor crop land 45. The *dol* position was allowed for by an addition of 25 to 30 per cent. The disadvantageous positions *tagar* and *bharkīla* received a deduction of 20 to 25 per cent and of 40 to 50 per cent respectively.

STATISTICS OF CULTIVATION.

Proportion of area occupied.

84. Of the total area of the District 1189 square miles or 31 per cent are included in Government forest, 290 square miles or $7\frac{1}{2}$ per cent are classed as not available for cultivation, and 692 square miles or 18 per cent as culturable waste other than fallow. The balance occupied for cultivation amounts to 1684 square miles or $10\frac{3}{4}$ lakhs of acres. This is equivalent to 44 per cent of the total area of the District or to 63 per cent of the village area. Excluding the land classed as unculturable, which amounts to 11 per cent of the village area, 26 per cent is still available for extension of cultivation. A large proportion of this area must, however, consist of tree-forest which is not likely to be cleared in the immediate future. Indeed in many tracts the soil thus covered is so poor and the pressure of population so light that it is actually more profitable to conserve it as forest than to clear it for cultivation. The proportion which the unoccupied area bears to the total varies enormously in different tracts. In the open valleys containing the best soil there is even now little room for expansion. Taking the figures for groups given in the Settlement Report, the Betūl group has only 8000 acres unoccupied out of a total of 51,000, and of this 3000 are unculturable. The unoccupied area in this group is 16 per cent of

the total. Other groups in which the unoccupied area forms a small percentage are Dahāwa-Dunāwa 14 per cent, Māsod-Pattan 16, and Jawalkhedā 17. On the other hand, in groups such as Chāndu, Bhanwargarh, Khāmāpur and the Tawā valley group in the Multai tahsīl, the unoccupied is actually larger than the occupied area. In the Betūl tahsil the unoccupied area forms 43 per cent and in Multai 24 per cent of the whole. Even in 1865 Mr. Ramsay wrote: 'Through-'out the open parts of the District the whole of the culturable 'land has been brought under the plough, and even in the 'wilder tracts great inroads have been made upon the domain 'of the forest.' And at the last settlement Mr. Standen remarked: 'In the open parts of the Multai tahsīl, *i.e.*, in four-'fifths of the mālguzāri area of the tahsīl, and in the Betūl 'group comprising 54 villages, the lands are quite fully occu-'pied............But in the jungly tracts there is a large area 'still waste, much of which having been formerly under *dahia* 'cultivation is free of forest growth, and will with the increase 'of population be brought under the plough again. Very little 'of this land is fit to grow anything better than *jagnī* and the 'minor millets, kodon and kutki, with frequent fallows.' A comparison of figures for the last two settlements does not give fair results. In the first place the statistics of the 30 years' settlement were notoriously inaccurate and in the second the figures for the last settlement relate to a famine year and represent exceptional conditions. For the purpose of comparison Mr. Standen took an average of the years 1891-92 to 1894-95, and that average showed an increase of 33 per cent in the occupied area since the 30 years' settlement and of 38 per cent in the cultivated area. The figures for 1904-05 show an increase of 3 per cent on the average occupied area between 1891 and 1895 and a decrease of 9 per cent in the cultivated area.

Fallows.

85. The area under old and new fallow amounted in 1904-05 to no less than 425,000 acres or 39 per cent of the occupied area.

This is in great contrast to the conditions prevailing in Districts in the plains which rejoice in a larger proportion of rich soil and in which the percentage does not exceed 20. But it need cause no surprise when the large proportion of poor soils is considered. The area taken up by such soils as *sihār*, *relāri* and *bardī* forms 55 per cent of the whole, and these soils require frequent and lengthy fallows. Figures for recent years show a steady fall in the area under new and a rise in that under old fallow. This is probably due partly to the increased accuracy of the records and partly to the proper classification of lands abandoned during the famine, which, under the rules, cannot be shown as old fallow until some years have passed. Mr. Standen gives the normal fallow area as 37 per cent on the total occupied, but his division showing old fallow 9 per cent and new fallow 28 per cent varies widely from the actuals for 1904-05, the figures for that year being new fallow 20 per cent and old 19.

Progress of cropping.

86. The figures for the last settlement owing to attestation having taken place in unfavourable years do not represent the normal conditions of agriculture in the District. For purposes of comparison it is better to take the average of the four years 1891-92 to 1894-95. The average gross cropped area thus obtained is 669,000 acres. This gives an increase of 5 per cent on the figure for the 30 years' settlement, but at that settlement current fallow was frequently entered as cropped land and the increase is really much larger. The cropped area in 1904-05 was 673,000 acres or an increase of ½ per cent over the average for the four years. This increase is small indeed, but in view of the long series of indifferent and unfavourable years it is a matter for congratulation that there is any progress at all. The influence of the bad seasons is distinctly shown. The gross cropped area reached 714,000 acres in 1892-93 and fell almost without any attempt at recovery to 456,000 in 1899-1900, but since then the increase has been steady if gradual.

87. The double-cropped area is always small, it is dependent on the late monsoon rainfall and consequently shows the most violent fluctuations. It reached 23,000 acres in 1902-03 and fell as low as 2000 acres in 1899-1900. This area falls into two divisions, consisting either of good land sown with rice, kutkī, urad or *sanwā*, as a catch crop before wheat or some other spring grain, or of poor soil sown with gram after kutkī, rice or *sanwā* when the rains are sufficiently late for the ground to retain moisture.

Double crops.

88. The statistics for the years since 1891-92 show the greatest variations in the distribution of the cropped area between *kharīf* and *rabi* crops. During that period the year 1892-93 had the largest cropped area, of which 61 per cent was under *kharīf* and 39 per cent under *rabi*. The *rabi* area was largest in 1891-92 and the percentages then were *kharīf* 58, *rabi* 42. During the four years ending 1894-95 which have been taken elsewhere as a standard for comparison, the average proportions were *kharīf* 59, *rabi* 41. With the advent of unfavourable seasons the *rabi* area rapidly declined. The contraction of the *kharīf* area was slower and less marked. The *rabi* crops were the first to suffer and difficulties in procuring seed and distrust of the rainfall led to considerable areas formerly sown with spring crops being put under the autumn grains. The climax was reached in 1899-1900, when, owing to the extraordinarily deficient rainfall, only 87,000 acres or 19 per cent were sown with *rabi* crops. Since then there has been a gradual recovery, and in 1904-05 the percentages were *kharīf* 68, *rabi* 32, the *kharīf* area being the highest recorded since 1891-92. The last Settlement Report gives the normal percentage of area occupied by the most important crops, calculated as before on the average for the four years ending 1895. These are compared below

Statistics of crops.

with the actuals for 1904-05:—

	1891-95.	1904-05.
	Percentage of total cropped area.	
Wheat	26	23
Gram	6	5
Masūr	4	2
Juār and juār arhar ...	10	12
Kodon kutkī ...	22	22
Jagnī and til ...	12	13
Sugarcane	1	4

Apart from variations due to seasonal conditions the most important changes in cropping of recent years are the increase of the area under cotton and the decrease of that under sugarcane. The area under cotton at the last settlement was only 2400 acres. In the Betūl tahsil its cultivation was confined entirely to one group, the Betūl Khalotī on the Berār border, and in Multai most of the area was also to be found on the Berār border in the Multai Khalotī group. The area in 1904-05 was 28,000 acres and the cultivation of this crop has spread to other parts of the District. The area under sugarcane reached its maximum (10,400 acres) in 1892-93 and in 1904-05 it was only 2800 acres.

CROPS.

Wheat. Varieties.

89. Wheat (*Triticum sativum*) is the first crop in importance. In normal years it occupies 26 per cent of the cropped area. Since 1891-92 the largest area under wheat was 176,000 acres in 1893-94 and the smallest 56,000 acres in 1899-1900. There has been considerable recovery since then though the pre-famine level has not been reached. The area in 1904-05 was 153,000 acres. Various varieties of wheat are sown. At the 30 years' settlement red wheats predominated and they

are now much esteemed for local consumption. But the construction of the Great Indian Peninsula Railway has placed Betūl in a position to supply the European demand for a soft white wheat and as much of the produce is available for export; this demand has caused a great increase in the cultivation of *pissī*, and it is not too much to say that the proportion of white and red wheats are now reversed. *Pissī* is a soft white wheat with long awns. A red variety also exists which is grown in small quantities. *Pissī* is said to grow well on poor soils and owing to its awns to be less subject to the depredations of wild animals than the red varieties. Other white varieties are *mundia* which to all intents and purposes is a beardless *pissī*; it is said to be the most rust resistant of all varieties. *Jalāliyā* is yellowish in colour and requires good soil. *Bansī* is golden in colour and has black awns; it is but little sown; *jowārya* or *kānpuryā* has a round grain, with very compact ears; it takes about a fortnight longer to ripen and is also sown in very small quantities. The common red wheats are *ekdāniyā* and *dandia*. They are bearded wheats with red ears and red grain. They are grown for local consumption and are preferred to the white wheats which are grown for the foreign market.

Methods of cultivation.

90. Land intended for wheat is treated with the *bakhar* once or twice in the hot weather. In the rains it is ploughed two or three times and is treated again with the *bakhar* before sowing. The number and thoroughness of these operations depend largely on the character of the rainfall. In the best wheat lands the soil becomes so heavy and sticky after rain that it is impossible to work the plough for some days, so that if the rainfall is heavy and continuous the land cannot be properly prepared. In the Betūl country the plough is not used at all, the *bakhar* being used instead. It is claimed that this treatment gives better results, but it is probable that the real reason is that the soil is so heavy and sticky

that the plough cannot be driven through it. Embankments do not find favour. It is said that the country is too uneven and that the crops in embanked fields are more liable to be injured by frost. Small embankments are built to prevent erosion, but regularly embanked wheat lands such as are found in the Jubbulpore country do not exist. Sowing is generally started at the beginning of October after the September rain known as *hāthi kā pāni*, but recent years of deficient rainfall have taught the people to be more elastic in their methods and sowing has taken place as early as the beginning of September. The plough is used for sowing and is fitted with a hollow bamboo with a small bowl at the top into which the seed is fed, generally by a woman; the seed trickles down the bamboo and falls into the furrow just behind the plough-share. In the Māsod-Pattan country the *tifan*, a triple seed drill, is employed. It was introduced from the Nāgpur and Berār Districts where its use is universal, but it has not been adopted in other parts of Betūl. Wheat land is not as a rule manured. No attempt is made to conserve manure and it is not available in sufficient quantities. The people think that manuring increases the damage done by white ants and as much of the manure used is not well rotted, this is probably true. Green soiling with *san*-hemp is but rarely practised in the case of wheat land, the Hindu prejudice against this crop preventing any rapid extension of the practice, though its value is recognised.

Rotation.

91. Rotation is understood and practised to a limited extent. The usual custom is to sow gram, tiurā or masūr in place of wheat, but there is no recognised order of rotation and these crops are not sown at fixed and regular intervals. Sometimes the cultivator is content to sow the mixture of wheat and gram called *birrā* instead of a pure crop of wheat. The value of *san*-hemp as arotation crop is recognised, but it is rarely sown and then as a rule only in the poorest wheat lands. Though excellent opportunities for irrigation often exist it is but rarely

practised in the case of wheat. Irrigated lands are more liable to damage by frost; and should the winter rains be heavy there is also the danger of rust and the cultivator shrinks from the outlay of capital required for irrigation when its value is so uncertain. The wheat crop does not require weeding. Wheat is generally harvested in March, but the exact time varies with the time of sowing and the character of the season. Threshing is carried out by bullocks which trample out the grain on the threshing floor. Winnowing is done by letting basketfuls of the grain and chaff fall slowly from a height; the wind blows the chaff to some distance and the grain falls in a heap by itself. A good breeze is necessary for this, and if the winds fail the operation is much delayed and it is not unusual for the rains to break before it is complete. The quantity of seed sown in an acre varies from 80 to 100 lbs. The average outturn for the District is given as 620 lbs. per acre. But in a good season the better lands would give a much larger return, and 1000 to 1200 lbs. is not uncommon.

Diseases and pests.

92. The chief disease to which wheat is liable is rust. Three different fungi cause this disease, and are known as *Puccinia graminis*, black rust, *Puccinia glumarum*, yellow rust, and *Puccinia triticina* or orange rust. The yellow and black rusts are generally found in Betūl. Rust is caused by excessive rain during the early stages of the crop. When the plants are attacked by this disease the ears do not fill out properly and the grain is light and poor. Other diseases are smut, caused by the fungus *Ustilago tritici*, and mildew caused by the fungus *Erysiphe graminis*, but these are rarely found in the District and the damage caused by them is inconsiderable. Wheat is liable to the attacks of four pests: (1) The surface weevil (*Tanymecus indicus*), (2) Termites (*Termes taprobanus*), (3) the wheat stem-borer (*Nonagria uniformis*), (4) the wheat aphis (*Siphonophon*). The surface weevil feeds on the young shoots as they come out of the ground and may destroy the

whole crop and make fresh sowings necessary. Termites attack the roots and thus destroy the crop. They are never numerous enough to ruin the crop over a whole field, but here and there bleached faded plants can be seen and the loss inflicted is occasionally considerable. The stem-borer is a caterpillar which attacks and destroys the main stem. If the grain is forming the loss is considerable, but if the plant is young it will throw out side shoots. The green aphis feeds on the leaves, and when the ear forms attacks it and sucks out the juice of the grain. The damage done by all these pests varies greatly from year to year. Termites are generally found year after year, but the injury from other pests is often inconsiderable and depends generally on climatic conditions.

Kodon and kutkī.

93. The next crops in importance are the millets kodon and kutkī, which together (the areas are not recorded separately) cover normally 22 per cent of the cropped area. The largest area recorded under them since 1891-92 was 202,000 acres in 1892-93 and the lowest 106,000 in 1897-98. In 1904-05 they occupied 145,000 acres. These crops form the staple food of the Gonds and Korkūs and are grown on the poor soils (*mutbarrā, sihār, retāri* and *bardī*) in the hilly country. They are rarely if ever found in the open villages of the trap plateau. Two varieties of kodon (*Paspalum scrobiculatum*) are grown, called *harnyā* and *godaria*. *Harnyā* is considered superior to *godaria*, but the latter has a larger grain and is more productive. Land intended for kodon is treated with the *bakhar* once in the hot weather and once after the first rain; the seed is then sown broadcast and the *bakhar* dragged again over the field to cover in the seed. The crop is sown in June or July and reaped in October, November or the early part of December. If the soil is *bardī* a regular system of rotation is recognised, consisting of *jagnī* in the first year, kodon in the second and third and kutki in the fourth. The land is then left fallow for three, four or even five years

The same system is followed when the land is *mutbarrā*, but the fallows are shorter and less frequent. Kodon requires some virtue in the soil, and hence the frequent fallows when it is sown on *bardī* land. Some *retāri* land is too poor to produce this crop. The crop is generally weeded twice in the rains. Some 20 lbs. of seed per acre are required and the standard outturn is 450 lbs. Kodon is practically immune from disease, but it was badly damaged by young locust hoppers in 1904. There are three varieties of kutkī (*Paspalum psilopodium*) *bewarī*, *kāli* and *rasoi* or *bhadelī*. *Bewarī* has the smallest grain and is considered the best in taste. It derives its name from the *bewars* or plots for *dahia* cultivation in which it was generally sown. *Kāli* has a black husk. These varieties are sown in August and are reaped in November. The method of cultivation is the same as that for kodon. *Bhadelī* is sown at the beginning of the rains and ripens in August, the land in this case being only treated with the *bakhar* once. Kutkī is generally grown on *retāri* and *sihār* and in rotation with *jagnī* and kodon on *mutbarrā* and *bardī*. It grows on the poorest soils and forms the last crop in a rotation series. About 38 lbs. are sown to the acre and the standard outturn is 400 lbs. Kutkī is very subject to the attacks of a black insect with red wings shaped like a wasp, which is locally known as the *ghorī* or horse-fly.

Juār.

94. The area under juār (*Sorghum vulgare*) was 84,000 acres in 1904-05 or 12 per cent of the cropped area, the normal percentage being 10. In former years it was rare to find juār on land fit to grow wheat, but the seasons of deficient rainfall and the difficulty of procuring *rabi* seed in sufficient quantities induced the people to put considerable areas of *rabi* land under juār. In villages on the Berār border the Berār system of cropping is followed and the best land is sown with cotton and juār in rotation. Elsewhere juār is generally raised on *mutbarrā* or *bardī* soil in rotation with *jagnī*, kodon and kutkī. It is but little grown in the sandstone villages

and then only on low-lying patches of *sihār* land near streams and generally in rotation with gram. The land is prepared with the *bakhar* in the hot weather and twice at the beginning of the rains. In the better soils the plough is also used. The seed is generally sown in lines with the plough or *bakhar*, but in places it is sown broadcast and in the south of the Multai tahsīl the *tifan* is used. It is sown in June and July and ripens in November and December. Two weedings are generally sufficient and before weeding it is usual to run a *daurā* (or small *bakhar*) down the lines in order to loosen the weeds and break up the soil round the roots. This crop requires careful watching when the heads form as it is very liable to the attacks of birds. Juār is sown as a mixed crop chiefly with tūr and also with a very small proportion of urad or mūng. Juār is liable to smut from excessive rain and to attacks from caterpillars and various grubs, the most common of which is the sugarcane borer (*Chilo simplex*). It may also be injured by a weed called *agia* (*Striga lutea*), the roots of which twine round the roots of the juār plant and check its growth. From 4 to 9 lbs. of seed are sown per acre and the standard outturn is 450 lbs., but Mr. Standen considers this estimate as excessive and gives the average outturn as 375 lbs.

Til and jagnī.

95. Til (*Sesamum indicum*) is a crop which has grown considerably in importance of recent years. The area under this crop, which was 18,000 acres in 1891-92, has grown to 49,000 in 1904-05. At the last settlement it was chiefly grown in *sihār* soil in the Tawā valley and to a less extent in the Bhanwargarh group and in *mutbarrā* and *bardī* in the villages in the extreme south of the District, but it is now commonly found in all the hilly tracts. It is a favourite crop with the Gonds and Korkūs who look to it to produce the money necessary to pay their rent. There are three varieties with black, white and red seeds. In the south the black-seeded til only is sown, while in other parts the white predominates ; this yields less oil than the red til,

but the oil is of better quality and fetches a higher price. The red or *maghai* til is usually grown as a cold-weather crop, being sown in August or September and cut in December or January. It is only grown on a few hundred acres as a rule. The other varieties are sown as rain crops. The methods of cultivation are the same as for juār, but the seed is sown broadcast. Til, especially the *maghai* variety, is very liable to damage from frost and fog. It is also attacked by a small insect called *mohā* which appears to induce a kind of black rust. Two to four lbs. of seed are sown per acre and the standard outturn is 200 lbs. Til is a crop of some commercial importance; it requires very little rain and these facts have combined to increase its popularity. *Jagnī* (*Guizotia oleifera*) has lost and not gained in importance of recent years. The area at the last settlement was 67,000 acres and in 1904-05, 41,000 acres. This crop is sown in August and reaped in December. It is probable that years of short rainfall have induced the people to substitute til (which ripens earlier) for *jagnī*. *Jagnī* is a hardy crop and is often sown as a first crop in imperfectly broken up land. It rotates with juār, kodon and kutkī. The land is treated as for kodon except that the tillage is generally less thorough. The seed is sown broadcast. Two to four lbs. of seed are sown per acre and the standard outturn is 150 lbs.

Other crops.

96. Gram (*Cicer arietinum*) is sown on good soil as a mixture or in rotation with wheat. It is sown on lighter soils in rotation with juār, and as a second crop after rice or kutkī. Though its value as a leguminous plant is fully recognised it is not as popular as in the wheat tracts of the Nerbudda valley, because it is very liable to damage from frost and fog. A caterpillar called *illī* invariably appears in wet or cloudy weather and causes great havoc. Two varieties are known, the red and the white, the latter being but little grown. From 56 to 75 lbs. of seed are sown per acre and the standard outturn is 450 lbs. Tiurā (*Lathyrus sativus*) is grown in good

black soil in rotation with wheat. Masūr (*Ervum lens*) is grown on poor soils in rotation with wheat or juār. In some villages in the Tāpti valley the Gonds sow it in good soil probably because the seed is cheap. These crops are of little importance. Linseed (*Linum usitatissimum*) is of no importance in this District.

Cotton.

97. One of the most striking features of recent years is the large increase in the area under cotton (*Gossypium herbaceum*). At the last settlement its area was only 2400 acres, of which more than 2000 acres were in the two assessment groups Betūl Khaloti and Multai Khalotī on the borders of Berār. Indeed it was thought that both the soils and climate of the plateau were unfitted for it and Mr. Standen wrote: 'The 'climate of this District is not suitable to the growth of this 'crop, the temperature being rarely high enough in October 'to admit of the bolls forming properly.' The rapid increase in the value of this crop has, however, had its effect and it is now being sown in all parts of the District in which suitable soils are to be found. The area under it in 1904-05 was 28,000 acres. The methods of cultivation are very slovenly; the crop is rarely sown in lines and weeding is but indifferently carried out. The people too generally sell the whole crop and take no steps to select or preserve seed. With improved methods of cultivation there seems to be no reason why the crop should not be successfully grown on a large scale. Only one variety, the common *jarī*, is sown.

Sugarcane.

98. Sugarcane (*Saccharum officinarum*) used to be a crop of considerable importance, but in recent years its cultivation has fallen off. The price of *gur* rose steadily from Rs. 20 per *khandī* (560 lbs.) in 1864, to Rs. 60 in 1871, but after that fell to Rs. 35 or 40 a *khandī*. Betūl *gur* has now to compete with the canal and tank irrigated produce of Upper India and Bengal, which is produced at a much lower cost, well irrigation

being the most expensive method. The largest area recorded was 10,400 acres in 1892-93 and that in 1904-05 was 2800. Considering the adverse circumstances under which the sugar is produced, it is perhaps surprising that the cultivation of sugarcane has not been more rapidly abandoned. But custom and the reluctance to sacrifice capital sunk in wells are responsible for this. When the cultivation of opium was prohibited, tenants who had good wells took up sugarcane, as in most cases they work with borrowed capital, and their creditors have forced them to continue it in order to obtain a return. Another circumstance which has helped to maintain the cultivation is the excellence of the *gur* produced in Betūl. Its superiority over that imported from other parts of India is so marked that even in Betūl it fetches a higher price. But unless much cheaper methods of irrigation can be devised the industry is probably doomed. As it is, little if any fresh capital is invested, and when a well falls in or the *agia* weed appears, the raising of cane is abandoned.

Cultivation of sugarcane.

99. The following description of the cultivation of sugarcane and the manufacture of *gur* is taken from Mr. Standen's Settlement Report.[1] 'The field in which the crop is grown is 'divided into several plots not less than three and rarely 'more than four in number, and the sugarcane is grown 'on each plot in turn. It is always irrigated; generally from 'a well, but occasionally from a hole beside a river-bed 'known as a *bharkā*. I have seen the cane on every soil 'in the District. The comparative merits of the different soils 'as cane-producers will be discussed further on. As a good 'deal of skill and capital is expended on the cultivation of this 'crop, I will give some description of the methods followed in 'cultivating the cane and making the *gur*, before considering 'the results of crop experiments with a view to estimating the 'average output. Before the rains, manure is laid down in

[1] Para. 83-88.

'the plot selected, and during the rains and the first months of 'the cold weather, it is ploughed backwards and forwards until a sufficiently fine tilth has been obtained. If the cultivator 'has been unable to give the land all the cultivation it requires, he sometimes breaks up the clods with a pick-axe or 'the back of an axe before sowing. At the end of December 'or beginning of January, the field is divided into numerous 'small plots with the main irrigation channels between them 'and the smaller ones across them. The furrows are made by 'using a plough with a triangular board fastened above and at 'the back of the share. The seed, which consists of small 'pieces of cane containing each three or four eyes, is then 'sown. The sower lays them in the water channels (both 'large and small) which have been previously well watered 'and as he drops each piece of seed, puts his foot on it, so as to 'partially bury it. As soon as the plot is sown a watering is 'given and the crop is then left without water for 15 days. 'If the cultivator have any well-rotted manure, he now spreads 'it on the surface of the land. The crop is then fenced. This 'fence should be made of thorny bushes beaten into a flat 'mass and placed between a double line of stakes fixed in the 'ground. The dead leaves which were stripped off the last 'year's canes before they were put through the mill are then 'stuffed into the crevices and a very stiff hedge 6 feet high is 'the result. But very often the cultivator cannot afford such 'an elaborate affair as this, and merely runs up a rough hedge 'of *tinsā* or *lendia* boughs which will keep out cattle but not 'jackals. A large part of the materials of the fence are used 'for more than one year. At the end of 15 days, the cane 'must be regularly watered. During the cold weather no 'part of the crop should be without water longer than eight 'days, and as the weather gets warmer the intervals of watering should not exceed four days. By the beginning of the 'rains the crop ought to be 3 to 4 feet high. During the 'monsoon there is nothing to be done but keep down the weeds, 'and as the canes begin to swell and sweeten, to keep off wild

'animals and bind the canes together so that they may not be 'broken by the wind or cracked by the heat of the sun. At 'the end of September, even before the rains have well ceased, 'watering must begin again. Great importance is attached 'to proper irrigation at this time, and it is considered 'unsafe to trust to the heavy showers which usually fall at 'the end of the rains. In the middle of December the harvest 'begins. The first *bāris* to be cut are those intended to be 'used for seed. The cutting and manufacture of *gur* con-'tinues into March.

Sugarcane gardens.

100. 'The very best *gur* is made from sugarcane 'raised in soil that has never before 'borne the crop or been manured. 'As the land becomes more and more saturated with 'the properties of the dung and refuse which is put on it year 'after year, the quality of the *gur* gradually deteriorates till 'it reaches the normal. The same cause in an exaggerated 'form accounts for the fact that the *gur* made from sugarcane 'grown on the *geunrā* land or watered from a well lying in 'the *geunrā* area is of such poor quality and fetches such a low 'price that it pays the cultivator better to sell it for seed. Con-'sequently all *geunrā* cane gardens are *bīj* or seed *bāris*. They 'of course require less manure than other gardens, but are 'less profitable except in large villages, where there is a good 'demand for vegetables. In such villages the land is kept almost 'continually under vegetables or cane, and the gardens are 'among the most profitable in the District. Sometimes if a 'man be too poor to afford to buy seed from a *geunrā bāri*, he 'will put down the flags from his own canes, but it is 'considered that this never produces a good crop.

The manufacture of gur.

101. 'When the crop is to be turned into *gur* in order to 'avoid the fermentation that would set 'in if the cane were cut, it is dug up 'with a sharp pick. The leaves are 'peeled off by women and the stripped cane is then taken 'to the mill. Until ten years ago the only mill known in the

'District was a cumbrous wooden structure, consisting of two 'heavy wooden cylinders set upright in a frame. One of the 'cylinders (known as the male) was turned by four bullocks, 'and the canes after being cut into small pieces were inserted 'between this and the fixed cylinder (known as the female) and 'crushed, the juice falling into a vessel below. But some ten 'years ago, an iron mill invented by Messrs. Mylne and Thomp'son of the Bihia Estate in Bihār was introduced; it rapidly 'became very popular and there are now some hundreds in 'the District. A cheap and less efficient imitation of this mill 'has been lately introduced from Delhi, and owing to its 'smaller cost is, I think, likely to displace the Bihia mill. Still 'even this machine is infinitely superior to the old wooden 'rollers. There are now some hundreds of iron mills in the 'District and every village which grows cane has one or two. 'Those cultivators who have no mill hire it from those who 'have, at R. 1 per diem. The cultivators do not yet take full 'advantage of the iron mill. They still sink it in a pit just as 'they used to do with the wooden mill, and this necessitates 'the burying of the receiving vessel in the ground, so that 'it cannot be easily cleaned. The old mill was so tall that 'it was necessary to put it in a pit, but the iron machine 'being much lower, could be worked on the level and 'the receiving pan could be easily removed and kept 'thoroughly clean, thus avoiding some loss due to fermenta'tion. As the juice is extracted, it is poured into the evaporat'ing pan. This is a large iron pan, from 6 to 10 inches deep 'and from 6 to 8 feet in diameter, placed over a furnace. 'When evaporation is complete (usually in 6 hours) the juice 'is ladled out and poured into a wooden trough sunk in the 'ground. After it has cooled and hardened, it is hung up in 'cloths to drain and in a couple of days is ready for the 'market. The neighbourhood of a sugarcane garden presents 'a very busy scene at boiling time. The work goes on without 'intermission night and day. If the workmen knocked off a 'night the furnace would get cold and the expenditure on

'account of fuel would increase. The juice is fairly clean 'when it leaves the evaporating pan, as all dirt rises in a scum 'to the surface during the boiling and is removed with basket-'work ladles. But when lying in the wooden trough it picks 'up much dust and small bits of rubbish, which must lower 'its value in the market. The quality of the *gur* is determined 'by the colour. The paler the crystals are the better price 'it will fetch, and the redder they are the less valuable is the '*gur*. If the weather be dull and muggy when the *gur* is being 'made, it is never of good quality. Sugar is never made, but 'occasionally the cultivator will keep a little *rāb* (half boiled 'juice) such as is used in the manufacture of sugar, and 'keep it till it crystallises into a substance like sugar-'candy. In those parts of Multai tahsīl which are at some 'distance from jungle, the refuse of the canes is used as 'fuel; elsewhere it is eaten by cattle or thrown on the land 'as manure.

Varieties of sugarcane.

102. 'Four varieties of the cane are grown :—(*a*) The 'English or white cane. This is known 'as the English cane, because it was 'introduced 40 years ago from Otaheite by Colonel Sleeman. 'This cane yields a larger percentage of juice than any other 'grown in the District and was at first eagerly taken up by 'cultivators. But it was soon found that there were draw-'backs to its cultivation. In the first place the delicate nature 'of the outer covering of the cane and its extreme sweetness 'render it particularly liable to suffer from the attacks of wild 'animals. Then again, owing to the thinness of this outer 'husk, the cane cracks and the juice ferments if it be left 'standing after February, and this is of course a very serious 'consideration for any cultivator who cannot command a 'mill and evaporating pan just when he pleases. Lastly and 'most important, it was found to be particularly liable in 'black soil to the attacks of the rust known as *narkia*, so that 'the plant is most largely grown in the sandy villages north 'of the Bel river, but elsewhere only in a mixture with other

'kinds which are sown round the edge of the garden to 'protect the English cane. (*b*) The *pachrang*, so called 'because it is variegated in shades of red and yellow, is the 'cane most generally grown. (*c*) The *sararī*, a very thin cane 'almost valueless for *gur*, is sown round the edge of *pachrang* 'or English cane gardens as a protection against wild animals, 'which do not care much for this hard and scarcely sweet 'variety. (*d*) The *kāla*, this is a deep red cane, very thick and 'strong, but producing a smaller percentage of juice than the '*pachrang*. It is little grown.

Damage to cane by wild animals and diseases.

103. 'Jackals are exceedingly fond of the cane, and it is 'of course very difficult to keep such ani-'mals out of the garden. If they cannot 'creep through the fence they will scram-'ble over it. Pig also do a good deal of damage in villages, 'that are within 3 or 4 miles of the jungle or large wooded 'nullahs. It is very difficult to turn a big boar out of the cane; 'fireworks and guns are sometimes let off without any effect, 'and these animals lie up in the cane for several days. 'Hyenas are common in the neighbourhood of some of the 'best sugarcane villages and are just as fond of the cane as 'the jackals. It is said that they will ruin in one night as 'much cane as would make a *khandī* (560 lbs.) of *gur*. Bears 'used to be a great nuisance to the sugarcane cultivation in 'some of the more jungly localities, but have been driven 'back into the jungle and now rarely venture so far afield.' The most serious pest that attacks sugarcane is the *agia* weed. Its appearance is a sign that the land is exhausted and requires a long rest. White ants also do much damage to the crop. The sugarcane borer attacks the base of the canes and causes them to wither. *Narkia* is a kind of rust which attacks the cane in the rains, turns it yellow and affects both the quantity and quality of the juice. The outturn varies greatly with the soil; in *retāri* it is about 1500 lbs. of *gur* per acre and in *kāli* 5000 lbs. A fair average would be 3500 to 4000 lbs.

Minor crops.

104. Opium used to be an important crop in this District and its cultivation was not finally prohibited until 1879. Before 1872 there was no restriction on the growth of the poppy-plant. From that year its cultivation was permitted only on license and the cultivators were bound to sell the produce to a licensed vendor. The system did not work well, however, the prohibition of private sales being generally disregarded. In 1864 the area under this crop was about 2500 acres. The loss of the remunerative opium cultivation is a stock grievance with the people and they assert that its abolition has interfered materially with the prosperity of the District. *San*-hemp (*Crotalaria juncea*) is a crop of some commercial importance owing to the demand for fibres. It covered 11,000 acres in 1904-05. It is sown in all kinds of soils, but not commonly in black soil. Its value as a rotation crop is recognised, but the Hindu prejudice against it prevents any large extension of cultivation. It is chiefly grown by Gonds and Korkūs and much of the area is found in the Chicholī and Nīmpāni tracts. The plants are soaked in water for 7 to 10 days and are then allowed to dry and the fibre is retted by hand. Most of the produce finds its way to Bombay, but a small proportion is made up into ropes and gunny bags by Banjārās for local consumption.

Rice.

105. Rice (*Oryza sativa*) is not of importance in this District. It is generally sown as a catch crop in *sihār* or *retāri* before gram or some other pulse. It is sown broadcast and transplanting is unknown. The fields are not embanked. Other minor crops are maize (*Zea Mays*) and arhar or tūr (*Cajanus indicus*). Maize is sown in the small gardens or *bāris* attached to each house in the village. The land from its situation is naturally manured. It is mainly grown for home consumption. Arhar is sown as a mixed crop with juār and cotton. Among other minor millets *sawān* (*Panicum frumentaceum*) and *kangnī* (*Setaria italica*) cover an appreciable area. The minor pulses

urad, mūng and moth occupied 9800 acres in 1904-05. Other minor crops are the oilseeds castor (*Ricinus communis*) and *kusum* (*Carthamus tinctorius*). Chillies (*Capsicum frutescens*) covered an area of 2600 acres in 1904-05. Other condiments and spices are quite unimportant. Garden crops occupied 500 acres in 1904-05 of which 300 acres were under brinjal (*Solanum melongena*) and *methī* (*Trigonella Fœnum Graecum*). An attempt is being made to grow potatoes in the south of the District and the last returns show 56 acres under that crop. Mangoes cover an area of 500 acres, but they are nearly all the common local variety, good grafted mangoes being rarely found. A few plantains planted near an irrigation well and one or two gardens maintained by gentlemen who take some interest in it represent the extent of fruit culture in the District. The total area under fruit trees is 530 acres.

Agricultural implements.

106. The common plough is called the *hal* or *nāgar*. It is a primitive instrument consisting of little more than two pieces of wood joined at an angle. One forms the pole to which the bullocks are yoked, and the other, shod with iron at one end, is the share; its top end serving as the handle by which the plough is guided. As a matter of fact this part consists of three pieces, the upright piece, the share, which is set at an obtuse angle below the upright, and the handle which is fixed to its upper end. The vernacular names for these parts are respectively *hal*, *chahu* and *muthia*. This plough is used for breaking up waste lands and generally in wheat and sugarcane cultivation though in some of the best wheat lands its place is taken by the *bakhar*. It is universally used for sowing and for this purpose is fitted with a hollow bamboo running down just behind the share and with a small wooden bowl at the top. The *bakhar* is a surface plough. The share is a piece of iron 1½ to 2 feet long and some 5 inches broad, set at right angles to the direction which the plough takes. The share is called *pāns*. It is used in all kinds of soils. The *daurā* is a small *bakhar* used for

weeding *kharīf* crops, being driven down between the lines, so as partially to uproot the weeds and loosen the soil. The *tifan* or three-pronged seed drill is only used in the Māsod-Pattan country. It resembles a *bakhar*, but instead of the share three hollow spikes are fitted about eight inches apart, and hollow bamboos lead down into these from a common bowl into which the seed is fed. The *parainā* is a goad, fitted at the other end with a flat blade which is used to scrape off the earth sticking to the share of the plough or *bakhar*. The *hansia* is the ordinary sickle and the *kodāli* a hoe used for weeding. The *ghāna* is the sugarcane mill, the *kadāh* the evaporating pan, the *batiār* a scraper and the *chokā* a wooden vessel in which *gur* is put to cool. The rapidity with which the iron sugarcane mill displaced the old wooden one shows that the people are not blind to the advantages of improved machinery. But capital is not likely to be invested in labour-saving appliances until the cost of labour rises considerably. The Agricultural Department have endeavoured to introduce a fodder cutter and a winnowing machine; several of the former have been purchased, but though the advantages of the latter are recognised its price is considered to be high.

Manure.

107. The use of manure is practically unknown except in sugarcane and garden cultivation. Even here no attempt is made to conserve it properly and it generally consists of rubbish and village sweepings with some admixture of imperfectly rotted cattle dung. Proper manure pits do not exist, and most of the cattle-dung is used for fuel. The cattle are not bedded down on straw and all the urine is lost. In many villages cattle are sent away to graze in the forests during the hot weather and the rains and the dung is thus lost to the owners. Green soiling is known and practised to a very limited extent, almost always in sugarcane land. The crops sown for this purpose are *san*-hemp, *jagnī* and *til*. They are ploughed in during August.

108. The following interesting description of agricultural improvements and of the manner in which the crops are injured by wild animals is reproduced from Mr. Standen's Report.[1] 'The agricultural improvements which are 'commonly made are irrigation wells, ditches and banks to 'prevent erosion of wheat land, the removal of stones from 'the surface, and the draining of water-logged land. Irriga-'tion wells are always sunk with the intention of watering 'sugarcane, and are by far the most frequent improvement. 'They are noticed subsequently.

Agricultural improvements

109. 'The situation of the greater part of the wheat land 'in valleys, many of which are very nar-'row, bordered on either side by stony 'slopes, renders it particularly liable 'to erosion from surface drainage. The centre of the valley is always occupied by a stream or river, which in the rains 'frequently overtops its banks and carries away from the 'fields the finer particles of the surface soil, leaving behind 'a layer of the coarse grit which it has brought from the high 'lands. Smaller water-courses run from the slopes on each 'side to the central nullah at frequent intervals. Every 'year's rain is likely to widen the existing channels even if 'it does not cause new ones to form. In this land there is 'always a tendency to deteriorate which can, however, to a 'great extent, be arrested by (1) embanking the central 'nullah and straightening its course; (2) directing the surface 'drainage from the slopes on each side; (3) terracing sloping 'land. The first-named operation is one that can only be 'effected at a considerable expense and is not often attempted. 'The second method of preventing deterioration is frequently 'practised. A shallow trench is dug round the edge of the 'wheat cultivation in the valley parallel to the contour of 'the slope above it: the earth is thrown up on the lower side,

Prevention of erosion by surface drainage.

[1] Settlement Report paras. 47-55.

'*i.e.*, next the wheat land; small nullahs running from the 'slopes to the central stream are blocked where they cut the 'line of the trench and large ones are straightened and 'utilised for carrying off the water. The size and cost of 'these works vary with the amount of water to be carried off, 'and the means of the cultivator. Some are drains 6 feet 'deep and wide with a high bank above them, while others 'are little more than deep furrows, made originally with a 'plough and deepened by the action of the water. The 'third kind of improvement is more rarely seen, but is of 'very great advantage and very easily effected. It is used 'in fields of moderate slope. All that is necessary is to 'place lines of large stones across the field at intervals. The 'intervals and the height to which the stones should be 'piled depend on the slope; if the slope be greater, the inter-'vals should be less and the height to which the stones are 'piled greater and *vice versâ*. After a few years, the upper 'part of the land between each line of stones is lowered, and 'the lower raised by the action of the surface drainage, until 'eventually the field is converted into a series of level terraces. 'There are excellent examples at Mauzā Kāti of the Multai 'tahsīl.

Clearing land of stones.

110. 'The collection of stones from the surface of the 'land is often effected in the course of 'terracing it. Apart from this its prin-'cipal use lies, I think, in the fact that 'the land can be better prepared for the seed when free of 'stones. The operation has to be frequently repeated, if the 'land is to be kept clear, as the plough and *bakhar* soon bring 'other stones to the surface which take the place of those 'removed.

Draining water-logged land.

111. 'The fourth and last of the improvements named 'above is one that demands the expendi-'ture of considerable sums of money, 'but promises an unusually large return. 'In the lowest parts of valleys and basins of wheat land, there

'is not infrequently a block of the best kind of soil, which 'owing to its position retains water so long that it is impossi- 'ble to cultivate it and it becomes filled with *moyá* grass '(*Saccharum ciliare*). Sometimes the area of this land is so 'small that it would not pay at the present prices of agricul- 'tural produce to drain it, but elsewhere an expenditure of 'Rs. 200 or Rs. 300 would place under cultivation eight or ten 'acres of the best wheat land and the investment would be a 'paying one. One of the best instances of this is to be found 'in Bāsner Buzrug of the Betūl tahsīl where the mālguzārs 'have brought under cultivation a large part of the former 'water-logged area of that village at an expenditure of more 'than Rs. 1000 and are continuing their operations in the 'same direction.

Noxious weeds.

112. '*Kāns* grass used to be little seen in this District and 'is not the scourge that it is in some other 'parts of the Province. I see it is more 'in evidence now than before the famine. Want of bullocks 'is resulting in careless cultivation of black soil in some 'villages, and the *kāns* is showing itself here and there where 'it did not exist before. *Moyā* grass, known as *mūnj* else- 'where, is found along the banks of nullahs and in wet 'places. It prevents cultivation where it exists, but unlike '*kāns*, is easily cleared. It is moreover of great use to the 'agriculturist as it makes a good string. The commonest 'weed in black soil is the wild balsam known as *tiwarī*. This 'is an annual which comes up at the beginning of the rains, 'and even if not rooted up with the *bakhar* would be dead by 'the beginning of the cold weather. The two commonest 'grasses of the jungle, known as *gondal* and *kusal*, soon spread 'over the fallow *barrās*, but are kept out of them without 'difficulty when under cultivation. The most noxious 'weed of this District is the *agia*. This is a small plant 'of insignificant appearance which comes up only in 'kodon and sugarcane crops. It is a great pest of the 'sugarcane cultivator, but never appears in *rabi* crops and

'only in kodon amongst *kharīf* crops. The derivation 'of the word is no doubt from *āg* (fire) and the name 'means the destroyer; to burn being often used by the 'cultivator as a synonym for to destroy. It comes up in the 'rains and dies down as soon as they cease. When it gets into 'a field the crop quickly dries and is often rendered not worth 'cutting. The appearance of this plant is a sign that the land 'is exhausted and requires rest or manure. It does not appear 'in the sandy soils even when under kodon and sugarcane.

Animals which damage crops.

113. 'Wild animals are a source of great annoyance and 'loss to the cultivators of a large number 'of villages in the District. They may be 'divided for the present purpose into 'two classes, *viz.*, those which always retreat to the jungle in the 'day-time, and those which are content to lie up in a wooded 'nullah or patch of waste covered with grass and bushes, 'if no better cover offers. In the first class, *nīlgai*, cheetal and 'sāmbhar are the most common, and in the second, pig, ante-'lope, gazelle, hare, monkeys, porcupines, hyenas and jackals.

Damage by animals which retreat to the jungle during day-time.

114. 'As the range of animals of the first class is limited 'it is not difficult to guard against their 'depredations. It is usual to fence and 'watch all fields near heavy jungle 'which deer are known to frequent. Sometimes the whole 'block of black soil in a jungly village is fenced with a 'continuous hedge of bamboos and stakes. The cost of the 'fence and the wages of the watchmen of course cut down the 'profits on the land, but if proper arrangements are made, I 'think the animals of the first class do little damage to *rabi*. 'It is more difficult to keep them out of *kharīf* crops, because 'the area under *kharīf* in jungle villages is always much 'larger and not so compact as that under *rabi*. Amongst *rabi* 'crops *pissī* wheat is least liable to damage, as the long 'spines protect the ear to some extent. Amongst *kharīf* crops 'kodon suffers least, possibly owing to the fact that the husk 'of the grain is very hard.

Damage by other animals.

115. 'The second class of animals are not tied down to 'the neighbourhood of jungles and it is 'consequently more difficult to keep 'them out of the crops. With the 'exception of hyenas and jackals, which attack sugarcane 'only, pigs are the most widely distributed. It is said that 'they never cross the Ambhorā river from the jungles which 'bound the central plateau in the south of the Multai tahsīl, 'but elsewhere there is always the chance of a sounder taking 'up its quarters in a village during the rains. If this happens 'in fairly open country the cultivators turn out in force and 'drive the animals into a neighbouring village, whence they 'are passed on again. In the dry season, when there is less 'cover in open country, their range is much more restricted, 'but even then they are sometimes found in the ravines and 'wooded nullahs of villages at a distance from heavy jungle. 'They are said to do more damage than any other animal, and 'this is no doubt true as they grub up the plant by the root 'and sometimes even make themselves a shelter in a juār 'or sugarcane crop by cutting down the tall stalks and piling 'them in a heap under which they creep. They are also 'more difficult to drive away than other animals. Antelope 'are found in all the open villages, though they are 'numerous only in those immediately round Betūl, and in 'that part of the central plateau which lies in the Multai 'tahsīl. The tips of the young shoots of gram require nipping 'off to make the plant spread, and provided it be not rooted 'up it is little damaged before flowering by being grazed by 'antelopes. Wheat again is little damaged after it has come 'into ear, because the long hairy spines of the ear prick the 'mouth of the animal unpleasantly and so protect the crop to 'some extent. Still these animals no doubt do a good deal 'of damage, but that they are comparatively innocuous com-'pared with pig is sufficiently shown by the attitude of the 'cultivator towards them. He is little excited by the pre-'sence of buck in his field, but let him find a pig in his crop

'and he will boil over with bad language at intervals for the 'rest of the day. Hyenas and jackals attack only maize and 'sugarcane. The remaining animals mentioned are found every-'where except in the more open villages of the central plateau. 'In some localities hares are numerous though not often seen, 'and I think that they and other small animals, which are 'for the most part nocturnal in their habits and owing to their 'small size very difficult to keep out of the crops, do much 'more damage than one would believe. I have seen a fine 'crop of American maize almost entirely destroyed by squirrels, 'rats and jackals, in spite of the efforts of a watchman. 'The maize, being sweeter than the kinds usually grown, no 'doubt attracted more than its share of animals, but the state 'of the crop showed what these little animals can do where 'they are numerous.

Damage by birds.

116. 'Amongst birds, peacocks and parrots are the 'most annoying to the cultivator. The 'former never leave the near neighbour-'hood of cover, but in the morning and evening flocks of 'parrots are on the wing all over the field. They are parti-'cularly noxious in juār and wheat, and may be seen biting 'off the ears of wheat in their flight and carrying them to the 'nearest big tree to eat. Juār is particularly liable to the 'attacks of birds of all sorts after it begins to ripen, and the 'watchman's shout and the crack of his sling are continually 'heard in the morning and evening in November and the 'beginning of December.'

IRRIGATION.

Irrigation.

117. The irrigated area is not large, and in normal years most of it is under sugarcane. In years of drought spasmodic attempts are made to distribute water from wells or by damming up small streams, but little or no capital is sunk in providing for regular irrigation of *rabi* land. There are no irrigation tanks in the District. The area irrigated in

1904-05 was 8900 acres and the number of wells 4896. In parts of the central trap plateau water is found even in the hot weather only 8 or 10 feet below the surface, but generally the hot weather level is 20 to 30 feet. Elsewhere water is commonly found at depths of 50, 60 or even 70 feet. On the undulating trap plateau where sugarcane is most largely grown durable wells can be made without brick and lime; he black soil is not very deep and the lower portion of the well passes through *muram* or rock, thus requiring no support; while the upper part passing through black soil is shored up with blocks of uncut stone which rest on a ledge in the *muram* or rock. Such wells last for many years and cost but little in repairs. In other parts of the District the soft deep soil makes a brick well to be a necessity. In many parts rock is soon found beneath the surface and blasting entails a considerable expenditure and there is often no certainty that water will be found. The shallow wells shored up with timber which appear to have been common at the 30 years' settlement are now but rarely seen. As a rule irrigation wells are small and narrow, just large enough to admit of one *mot* being worked. But better wells are occasionally found, a notable instance being a well at Aonria belonging to the proprietor. This well yields an unfailing supply of water and is so large that nine or ten *mots* can be worked at the same time. The *mot* (a leather bucket) is universally used for raising water from the well and no other devices, such as pumps, Persian wheels or gear of any kind are employed.

CATTLE.

Features of the local breed.

118. Cattle are bred in the hilly sandstone country to the north and on the Khāmla plateau in the south-west. The local breeds have no pretensions to fame. They are small hardy animals with hard feet which enable them

of the larger animals bred in the plains would soon be knocked to pieces. The Khāmla herds have some Berāri blood and the cattle are larger than those bred in the north. The greater proportion of these are sold in Berār. Many mālguzārs and well-to-do tenants breed their own cattle. There is generally no attempt at systematic breeding. The Gaolīs of the Khāmla plateau profess to make an attempt to do so, but it is doubtful if they really do much in practice. Bulls are not castrated until they are three years old; they are allowed to run with the herd and most of the cows are covered by young immature animals. The people do not castrate earlier because they say the animal's crest does not form properly if they do. It is rare to find a selected bull kept for breeding only; generally the demand for bullocks is so great that every animal is castrated and sold on arriving at the age of three years. Thus the great proportion of cattle bred in the District are the progeny of immature bulls. The local supply is not sufficient to meet the demand, many of the white and grey cattle known as the Mālwā breed being imported from the Sohāgpur tahsil and from Bhopāl. Cattle are also imported from Sankhā in Bhopāl, Deogarh in Chhindwāra and from the Pachmarhī hills. In the south of the Multai tahsīl some are also imported from Berār. Well-to-do mālguzārs keep a pair or two of trotting bullocks, the best of which come from Berār, Nimār and Khamārpāni in the Chhindwāra District. Castration is performed by Māngs and Gaikīs in the usual manner by pounding the testicles into a pulp. This method seems unnecessarily brutal, but losses from the operation are very rare. The Gonds never fit a nose string to their bullocks, but guide them by a string fastened round their horns. An average pair of bullocks can plough one *bakhar*, two acres, and irrigate a third of an acre of sugarcane a day. The average working life of bullocks used for well work is only about four years, but for other purposes they last 7, 8, or even 10 years.

Prices.

119. The prices paid for bullocks vary enormously. The poorest cattle can generally be had for Rs. 20 to Rs. 30 a pair, while fancy prices are paid for imported bullocks. At a rough average a pair of bullocks fit to work in good *rabi* land would cost about Rs. 50 and a pair fit for well work Rs. 80. Imported cattle fetch as much as Rs. 250 a pair, and even higher sums might be paid for fast trotting bullocks. These prices are greatly affected by local conditions; for instance a severe epidemic of disease in 1905 nearly doubled the price of an average pair.

Food.

120. As a rule cattle get nothing but *karbī* (juār stalks) and chaff besides what they can pick up for themselves. In villages in which grazing is poor the cattle run down very much in the hot weather. They eagerly devour the first juicy grass that comes up with the rains and many die at that time from various forms of bowel disease. In the open villages many of the cattle are sent to graze in the forests in the hot weather and the rains. The Gaolīs who keep large herds for breeding purposes give their animals nothing but grass and leaves. Salt is given sparingly in the rains, but not at other times. The bullocks used for well work always get some grain (generally tiurā) or oilcake and specially valuable or favourite animals no doubt receive special treatment everywhere. Cows are kept for breeding purposes and for the milk they yield. The milk is used for home consumption and is not made into *ghī*. The value of their dung for manure is not appreciated.

Statistics of plough-cattle.

121. The average number of plough-cattle for the three years ending 1904-05 was 115,000. In estimating the numbers available for the plough, allowance must be made for those employed to irrigate sugarcane. Mr. Standen allows one pair per acre for this. Taking the average area under cane for the three years the number required would be 6800. This leaves 108,000 head for 648,000 acres under crop, an

average of 12 acres per pair of bullocks. The average at the last settlement was 19 acres and the number of cattle 84,000, so recent years show much improvement in the supply of plough-cattle. There was a great loss of plough-cattle in the last famine, the number in 1899-1900 being 131,000 and in the next year 93,000, showing a decline of 38,000 or 29 per cent.

Buffaloes.

122. Buffaloes are hardly ever used for agricultural purposes. There is no ploughing in water to be done, as in the rice country, and their inability to work in the heat of the day makes them practically useless. They are sometimes used for irrigation work where good shade is available. Gaolīs and Gonds keep large herds in tracts where the grazing and water-supply are good and use the milk to manufacture *ghī*. Cow-buffaloes give up to 16 lbs. of milk a day. They fetch up to Rs. 80 each. Young bulls are exported to Bālāghāt and Berār where they are used for agricultural purposes. The number of cow-buffaloes in 1904-05 was 21,000.

Ponies and small stock.

123. Ponies are bred in a haphazard way and are of a very poor stamp. A few well-to-do people import animals of a better class, but it is rare to see one measuring over 12 hands. The number in 1904-05 was 6000. Gaolīs and Gonds keep considerable number of goats and a few sheep for sale as food. But the Gādris (Gadarias) who weave coarse blankets have to import most of the wool. In 1904-05 the goats numbered 48,000 and the sheep 5900. No use is made of their manure. There are very few donkeys in the District, the number in 1904-05 being 562. They are used as pack animals by Kumhārs and Dhobīs.

Diseases.

124. Cattle-disease is rife in this District and often assumes epidemic form. There was a bad outbreak in 1905 and in some tracts the losses were estimated at 25 per cent of the number n the village. The commonest cattle-disease is foot-and-

mouth disease (*khurī*) ; blisters appear on the tongue, and blood and matter ooze from the hoofs. The local remedy is to apply *ghī* to the tongue, while the animal is made to stand in mud. The disease is most common in the cold weather and cloudy weather at that season is said to increase its virulence. Rinderpest (*māta*) is common and generally appears in the hot weather. Black-quarter (*ektangia*), a form of anthrax, is often common and is generally fatal. The people know of no efficacious treatment for this disease. Other forms of anthrax are *phārwa* or internal anthrax which is generally fatal within two days. The lungs are congested, and the liver swells and turns black. *Phānsi* or gloss anthrax is a disease affecting the tongue ; it is generally not fatal if treated in time.

Cattle markets.

125. No regular cattle-fairs are held in the District, but a number of head are sold at the Malājpur and Bairām fairs. Important cattle markets are held weekly at Kherlī, Birūl and Betūl. The average number of cattle sold annually in these markets in the last three years were Kherlī, 1400 ; Birūl, 3700 ; Betūl, 1500 ; and the average prices realised were Rs. 19, 13 and 17 per head respectively.

CHAPTER V.

LOANS, PRICES, WAGES, MANUFACTURES, TRADE AND COMMUNICATIONS.

Loans.

Land improvement and Agriculturists' loans.

126. There is little scope for large works in the District and the improvements usually carried out consist in the excavation of wells for irrigating sugarcane, the construction of ditches and banks for protecting wheat fields from erosion, the removal of stones from the surface of *barrā* land and the draining of water-logged areas. Wells are always sunk for the purpose of irrigating sugarcane, and they are the most common form of improvement. Loans for the improvement of land have only been taken in any substantial sums during the famine of 1897, when they were granted free of interest, as a means of affording employment in villages. From 1877 to 1883 only Rs. 3000 were advanced under the Act of 1877 and from 1884 to 1896, Rs. 9000 were given out under the Act of 1883 or less than Rs. 1000 annually. Nearly Rs. 18,000 were distributed in 1897, but since that year the sum advanced annually has again fallen to below Rs. 1000. The total sum advanced under the Acts from 1877 to 1905 was Rs. 39,000, of which Rs. 31,000 have been recovered and Rs. 4000 remitted. Interest to the amount of Rs. 3000 has also been recovered. Between the last settlement (1897-98) and 1904, 113 *sanads* have been granted for works of improvement, of which 104 related to irrigation wells costing Rs. 18,000, and nine to field embankments costing Rs. 2000. Mr. Standen gives[1] an interesting statement of the improvements exempted from assessment at his settlement, the total amounting to nearly 1700 wells excavated at a cost of Rs. 1·90 lakhs and 45 embankments valued at Rs 6000.

[1] Settlement Report, para. 215.

The annual rental value of the improvements was Rs. 8600 and the exemption of this sum in accordance with the rules was equivalent to a remission of Rs. 1·23 lakhs during the period of settlement or about two-thirds of the cost of the improvements. From this statement it appears that the amount expended on improvements was larger during the currency of the 30 years' settlement than in recent years, the explanation of this fact no doubt being that the construction of a well for sugarcane is no longer the remunerative investment that it once was. Under the Agriculturists' Loans Act Rs. 21,000 were advanced between 1883 and 1896, while during the next five years a sum of Rs. 2·61 lakhs was given out, principally during the famines of 1897 and 1900. In the two subsequent years the loans have again fallen to below Rs. 4000 annually. Altogether Rs. 2·99 lakhs have been advanced between 1883 and 1905 of which Rs. 2·53 lakhs have been recovered on account of principal and Rs. 16,000 for interest, while Rs. 32,000 have been remitted. The transactions under both Acts have thus resulted in some loss to Government, but have without doubt been a great benefit to the people, and especially to the Gond cultivators of the forest tracts, whose credit is not good enough to enable them to borrow any considerable sums from private bankers.

Rates of interest on private loans.

127. The rate of interest on private loans is usually 12 per cent to proprietors of good credit or on the mortgage of land. While on the pledge of jewellery and in the case of large transactions it may be as low as 6 per cent. The rate to tenants varies from 12 to 24 per cent according to the standing of the borrower, while for small sums and in the case of Gond tenants it rises to 37½ and 50 per cent. Loans of grain of the spring crops for seed are generally given at 25 per cent for the period between sowing and harvest, while in the famine years the rate increased to 50 per cent. For the seed of the autumn crops 25 per cent is

charged for juār and 50 per cent for the other grains, while the rate for oilseeds is 100 per cent. Loans of seed grain are generally made orally or by entries in account books, bonds being taken only from untrustworthy clients. Mr. Standen writes as follows on this subject[1] :—'Except in bad 'years such loans are as a rule punctually repaid with inter-'est, and no doubt after a bumper crop many tenants could, 'after paying off the debt, still retain sufficient grain to sow 'their land in the succeeding year and make themselves 'independent of the mālguzār in this respect. But few do 'so; partly because they prefer to spend their surplus on 'marriage or other ceremonies or ornaments, and partly 'because it is recognised that a tenant who habitually borrows 'seed from the mālguzār has a claim to receive seed from 'him in bad seasons, on the usual terms of repayment in kind 'even though this may involve some pecuniary loss to the 'mālguzār. The interest paid on these loans amounts to 'about eight annas per annum on every acre of *rabi* 'land sown with borrowed seed, and about three annas 'on every acre of *kharīf*. It is usual for the mālguzār to set 'aside one or more grain-pits in the village in which the stock 'of seed-grain is stored, and he has by custom no right to 'sell any part of this stock, which represents the amount 'required to sow the lands of habitual borrowers. In the 'famine year some mālguzārs could not resist the temptation 'to dispose of their stock of seed-grain for cash during the 'hot weather and rains of 1897, and this led to many com-'plaints by the tenants. Others, though refusing to lend on the 'usual terms of repayment in kind, refrained from selling it 'to the dealers for cash down ; and gave it to their tenants on 'an agreement to pay after harvest the cash value of the grain 'at sowing-time with interest. Some few maintained the 'old system of payment in kind with 25 per cent interest, 'and that any should have been found to do this at a time 'when it meant such a substantial loss to them, shows, I

[1] Settlement Report, paras. 141-152.

'think, the strength of this custom.' It may be also taken to indicate a considerable degree of public spirit and consideration for their tenants on the part of such mālguzārs. As regards the Gonds and Korkūs, Mr. Standen remarks :— 'Few Gond and Korkū tenants habitually get through 'the year without a loan of food-grain (*porgā*) from the 'mālguzār. The loan is usually made at the end of 'the hot weather and lasts the tenant with the addi-'tion of mahuā till the end of August, when the maize 'and *bhadelī* kutki crops are cut. They generally sow 'their own *kharīf* seed, but often borrow *rabi* seed in the 'same way as tenants of the open villages. They consider 'that they have a right to receive a loan of *porgā* and seed-'grain from the mālguzār and if he refuses it have a grievance 'against him. The rate of interest for *porgā* is 50 per 'cent paid in kind at the harvest, and for the seed the same 'as in the open villages, that is, 25 per cent for *rabi* crops and '50 per cent for *kharīf*. But sometimes mahuā is advanced 'for food on condition that an equal quantity of juār or even 'wheat is returned at the next harvest.' The practice of *lāwani* is followed to a considerable extent with Gond tenants, small cash loans being given before the crop, to be repaid in grain at the harvest. The rate fixed usually gives interest of about 50 per cent on the loan. Holdings surrendered during the famines have been frequently given out again on payment of a *nazrāna* or fine amounting to Rs. 100 or Rs. 200. Large fines are taken for good black soil and irrigated land and little or nothing for poor soil.

Sub-leases.

128. A considerable area of land is sublet on the contracts called *bataī* and *adhelā*. The former of these terms is applied to a sub-lease when the tenant supplies the land and the seed, and the sub-tenant the labour and bullocks, and it is agreed that the sub-tenant shall render to the tenant as rent, half the produce after deducting seed and interest thereon. Nearly 80,000 acres are sublet on *bataī*. Land is said to be held by

an *adhelā* when the tenant supplies the land, the seed and the bullocks, and the sub-tenant only the labour; the produce being in this case divided after the lessor has taken the equivalent of the rent and seed grain with interest.

Principal moneylenders.

129. The leading moneylending firms of the District are those of Seth Lakshmī Chand Oswāl Baniā of Badnūr and Rai Sāhib Seth Sundar Lāl Dhūsar Baniā of Multai. Seth Lakshmī Chand also owns most of the bungalows in Badnūr. Next in importance comes Seth Mānik Chand Oswāl Baniā of Badnūr. Two or three other Dhūsar Baniās of Multai have considerable transactions. The most prominent moneylenders of other castes are Sītārām Patel Bhoyar of Aonria, the Kunbī family of Baghorā, the Kalār brothers of Chicholī, Hanumān Kalār of Bhainsdehī, Nandlāl Naik Teli of Rānīpur, and Gopīrām Sonār of Multai.

Agricultural finance.

130. Mr. Standen gives the following interesting description of the loan business of the District[1] :—'Mālguzārs, if they have 'sufficient capital, always endeavour to supply the needs of 'their tenants, so as to keep professional moneylenders outside 'their villages, as they know that if one of these men once 'gets a footing, his connection is liable to extend and the 'collection of rents becomes difficult. They are as a rule more 'lenient creditors than the professional moneylenders. Apart 'from the influence of public opinion to which their position 'exposes them, they have a stronger hold over their debtor 'tenant than the outside moneylender and have therefore 'less need to harass him by illegal means. If the debtor 'has bullocks and can keep up a steady annual payment 'towards interest, he does not press for the repayment of 'principal on the expiry of the term mentioned in the bonds; 'but should the interest fall into arrears, he takes steps to 'recover the debt. Frequently the tenant finding himself on 'his last legs and not wanting the bother of a suit gives the

[1] Settlement Report, paras. 160-164.

'mālguzār a deed of relinquishment of his holding, and the 'land is let to another tenant on an annual rent with a premium 'equal to the amount of debt due on it. Other moneylenders 'work very much in regular beats except a few of the largest 'firms. Almost all the considerable transactions in an area 'of fifty or sixty villages will be in the hands of one wealthy 'Baniā, while the petty business will be divided among a 'number of local usurers with a capital of a few thousand 'rupees each. This latter class is in the jungle tracts generally 'recruited from the Telis and Kalārs, who reside there for 'the purpose of their trade in jungle produce, and elsewhere 'from the well-to-do cultivators of the locality. These petty 'dealers often lend on very poor security and have to take 'an immense amount of trouble to realise very small sums. 'Their rate of interest is rarely below 25 per cent. If they 'are cultivators they not infrequently take a mortgage with 'possession in lieu of interest or more rarely in full satisfaction 'of the debt. The large moneylenders are much less ready to 'grant time on a mortgage-deed to a mālguzār than to a tenant. 'They can easily manage villages themselves and make more 'profit out of them, than they could annually screw out of 'the mālguzār, but in the case of holdings they must put 'in a hired servant who probably will not work so well as 'the tenant. After harvest the bankers engage a number of 'town *badmāshes,* dismissed tahsīl *chuprāssis* and others, 'and send them round to extract what they can from the 'cultivators by dint of intimidation or even force. It 'is not uncommon for the creditor to station one or more 'of these duns illegally in the threshing-floor of a debtor to 'prevent him from removing the produce. This kind of thing 'naturally does not endear the moneylender to the average 'tenant and he is always averse to exchange a mālguzār of 'an agricultural caste for one of these men. Cases have 'been known where the well-to-do tenants have formed 'themselves into a syndicate for the purpose of buying out 'a Baniā who was threatening to oust the mālguzār. It very

'often happens that the tenant makes a payment to his 'banker before he has paid his rent and this practice is a 'cause of a large part of the arrears of rent where they exist. 'When the moneylender lives near the village and the 'mālguzār at a distance, even the strongest mālguzārs are 'defrauded of their rent in this way. The remedy lies in the 'hands of the mālguzārs and now that the higher demand of 'the revised settlement has to be paid, they will probably 'make use of the provisions of law designed to facilitate the 'collection of rent. It has been the custom for the civil 'courts to attach cattle in execution of a decree as a matter 'of course without inquiry from the decree-holder as to 'whether they are agricultural cattle or not. Cultivators 'are often put to much loss in this way. A reference 'to the record of the suit would always show whether 'the judgment-debtor was an agriculturist or not, and if 'he be one, there is little doubt that all his bullocks are 'used for agricultural purposes and should not be attached. 'I remember an instance in which a creditor had attached 'the well-bullocks of a sugarcane cultivator in the height of 'the hot weather, with the result of course that his cane-'crop was abolutely ruined in a week, long before the bullocks 'could be released. The prohibition of the transfer of culti-'vating rights in *sīr* will of course reduce the market value of 'villages, but there can be no question that the mālguzārs will 'have no difficulty in raising all the money they can possibly 'require for agriculture. The credit of occupancy and ordi-'nary tenants must be seriously affected by the loss of their 'powers of transfer, and this will probably show itself by a 'rise in the average rate of interest, as well as by a decrease 'in the sums they can obtain on loan. But the expenditure 'involved in the cultivation of unirrigated spring and autumn 'crops is very small, and the crops themselves afford security 'sufficient to enable the tenant to borrow the small sum re-'quired on this account. But the cultivator's credit will not 'now suffice to obtain him the money required for extrava-

'gant expenditure on social ceremonies; and by compelling 'him to be more careful in this respect, the amended Act may 'be productive of much good by keeping the agricultural 'classes on the land.'

Financial condition of the proprietors.

131. Mr. Standen found that at the time of his settlement 634 mālguzārs were holding 1143 villages, shareholders in the same family being apparently omitted from computation. Of these, 226 men holding 408 villages were well off, 255 holding 460 villages were comfortably off, and 153 holding 275 villages were poor and indebted. He wrote of the proprietary class as follows [1]:—'The mālguzārs of the Multai tahsīl 'are on the whole in a less satisfactory condition than those of 'Betūl tahsīl. Generally speaking the only men who have 'prospered are those who combine moneylending on a con- 'siderable scale with agriculture, while the others have to a 'large extent fallen into the hands of the Baniā, Sonār and 'Brāhman moneylenders. These castes as well as Kāyasths, 'Telis and Kalārs are often moneylenders by trade and 'have acquired their villages during the 30 years' settlement in 'satisfaction of debts, while proprietors of other Hindu castes 'and Muhammadans are agriculturists, who if they lend at all 'do so only to help their tenants. There are, however, not a 'few men of the Kunbī, Bhoyar and other agricultural castes, 'who have both a large moneylending business and extensive 'cultivation. Such are Sītārām Bhoyar of Aonria and the 'Kunbī patels of Baghorā and Bākur. About 70 per cent of 'the mālguzārs may be said to be agriculturists, while if Brāh- 'mans are included as moneylenders, this class furnishes 20 'per cent of the proprietary body, and the balance of the '*lambardārs* fall under neither category.'

Transfers of villages.

132. From a statement given by Mr. Ramsay, it appears that of the 1092 villages in which proprietary right was conferred at the 30 years settlement, in 566 the patels had held prior to the commencel

1 Settlement Report, para. 126.

ment of British rule, and in 309 more from the first British settlement in 1822. A considerable proportion of the remaining villages were also forfeited for alleged complicity in the Mutiny. Thus in the period of 42 years, from 1822 to 1864, less than 20 per cent of the total number of villages changed hands, though during a part of this period the land-revenue demand was admittedly excessive, and failures of the harvest were not wanting. This is an instructive fact as tending to indicate that but for the conferral of proprietary right the question of the expropriation of the agricultural classes by professional moneylenders would never have arisen. During the currency of the 30 years' settlement, Mr. Standen shows that the transfers amounted to 226 whole villages or about 20 per cent of the number in the District. The amount for which they were transferred was Rs. 7 lakhs, and the land revenue assessed Rs. 36,000, the multiple of the prices realised on the land revenue being thus 19. This indicates a high value of landed property, but the transfers were considerably more numerous proportionately than in the preceding 40 years. The statistics of persons by and to whom transferred show that moneylenders gained 120 villages, or 10 per cent of the total number in the District during this period. Between 1897-98 and 1903-04 villages and shares aggregating 207 whole villages or about a sixth of the District total were transferred, the Government revenue assessed being Rs. 45,000, and the aggregate consideration realised Rs. 5·27 lakhs or 12 times the land revenue. Moneylenders gained by about half the total number of transfers, while the process of alienation was more than thrice as rapid as during the 30 years' settlement. The statistics of villages owned by different castes at Mr. Standen's settlement and in 1903 show that Baniās in this short period increased their estate by no less than 67 villages, while Kunbīs and Kurmīs combined held 22 villages more. Korkūs lost 28 villages out of 76, Gonds 9 out of 41 and Rājputs 15 out of 144. Otherwise there was little variation,

but the statistics for 1903 show 1191 villages as against 1143 at settlement. Brāhmans now hold more than 200 villages, Kunbīs and Kurmīs nearly 300 and Baniās 170.

Condition of the tenants.

133. At the time of his settlement Mr. Standen found nearly 34,000 tenants' holdings existing in the District, counting holdings of the same tenant in different villages separately. Of these 22 per cent were held by Kunbīs, and 27 per cent by Gonds, while Bhoyars and Korkūs had between 7 and 8 per cent each and other castes a smaller number. Of the total number of tenants 11 per cent were classed as well-to-do, 64 per cent as in average circumstances with an ordinary amount of debt but not subject to any special risk of losing their holdings, and the remaining 25 per cent as heavily indebted or living from hand to mouth. The following remarks on the tenant class are taken from different paragraphs of Mr. Standen's Report. The Kunbīs, Bhoyars, Mālis and Kirārs are the best cultivators. They are the largest rent-payers and the most indebted as well as the most prosperous tenants are found among them. The Gonds and Korkūs are the most numerous class of the agricultural population, but they are not the most important, as they cultivate the poor lands which pay only a small proportion of the revenue of the District. The tenants of the good cultivating castes reside in the villages round Betūl and in all that part of the central trap plateau which lies in the Multai tahsīl. The majority of them have from 20 to 40 acres of land and owed from Rs. 100 to Rs. 150 to their banker at settlement. In the absence of specially disastrous circumstances, the amount required to carry on the cultivation of the ordinary spring and autumn crops is small and the purchase of bullocks or of land are in fact the only purposes connected with agriculture for which the tenant if he does not grow sugarcane requires to borrow cash. But few tenants with the above quantity of land spend less than Rs. 80 or Rs. 100 on the marriage of a son. The case of

sugarcane cultivation is different. The capital required for the growth of this crop is considerable and tenants generally work with borrowed money. At settlement there were 11,500 Gond and Korkū tenants of whom 2600 or 23 per cent had no bullocks. These cultivators generally hire bullocks from the neighbouring Gaolīs. If they hire trained animals they have to pay one *khandī* (360 lbs.) of unhusked kodon per bullock, a very high rate, as its value would come to nearly Rs. 5 at present prices. It is more usual, however, for them to take young unbroken bullocks and bulls and train them, as for these they have only to pay half rates, or if they agree to castrate the bulls, nothing at all. Drink, Mr. Standen says, is the great curse of these tribes. If they only took their daily dram (even though it were a large one) the evil would not be so great. But on certain festivals and at marriages their craving for liquor induces them to waste their substance in the most riotous way. Considering the scale of their expenditure on marriages it is clear that cultivation in these forest tracts is not so unprofitable as might be supposed. It is true that they make something out of sales of jungle produce, especially timber, but at the best of times the earnings from this source are not more than enough to pay for their simple clothing and ornaments and their supply of salt. The Gaolis of the District belong to two subcastes, the Ranyās and Nandvansīs. The former are essentially cattle-breeders and if they cultivate at all have only a large maize garden, over which they spread moist cowdung at the beginning of the rains, and sowing the seed without ploughing, reap heavy crops of maize and the minor millets. They are found in the jungles of Bhanwargarh and Saolīgarh in the north of the Betūl tahsīl. Among other cultivators Mahārs are most largely represented. They are bad cultivators and terrible drunkards, rivalling or even excelling the Gonds in this respect. They are particularly numerous in the south of the Multai tahsīl where they hold a considerable area of good land. Rājputs are scattered in

small colonies through the open parts of the District. They are often heavily indebted, chiefly owing to their extravagant habits. Raghuvansis are confined to the north-east corner of the open trap plateau. They are generally good cultivators and prosperous. Telis and Kalārs hold a little land in many villages, but almost always combine petty trading with agriculture and do not follow the plough themselves.

Conciliation proceedings.

134. The indebtedness of the agricultural classes had increased to a very serious degree after the second famine, and in 1903 proceedings for the conciliation of debts were undertaken. These extended over 1904 and 1905 and were ultimately brought to a conclusion with very substantial results achieved, the officer in charge of the work being Mr. Sundar Lāl, Extra Assistant Commissioner. The paying capacity of a tenant was calculated at ten and twelve times the rental, in forest and open tracts respectively, if he possessed transferable right, and at seven and ten times if he did not. The estimated value of his other property excluding his house and plough-bullocks was added, and endeavours were made to wipe off the debt which he owed in excess of this amount. In the case of a mālguzār the value of the *mahāl* was taken at 16 times the land revenue in forest groups and at 20 times in the open country, but in the case of good and important villages these rates were insufficient and an estimate was made of the actual selling value. The proceedings extended to 344 villages of the Multai and 477 of the Betūl tahsīl or more than two-thirds of the total number in the District, and arrangements were made in respect of the debts of 117 mālguzārs and 3483 tenants. The total amount of debt owed by them was Rs. 20 lakhs, of which the creditors remitted Rs. 12 lakhs or three-fifths, and the balance was made payable by instalments or by the sale and lease of estates. Each mālguzār owed on an average Rs. 3700 and

got a remission of more than Rs. 1200, and each tenant owed Rs. 460 out of which Rs. 300 was wiped off. The average amount remitted was thus two-thirds in the case of tenants and one-third in that of mālguzārs. A number of sale cases were also amicably settled and a part or the whole of the property saved to the debtors. The two creditors whose generosity was most notable and on whom the success of the proceedings may be said to have depended were Rao Sāhib Sitārām Patel of Aonria who remitted Rs. 1·74 lakhs and Rai Sāhib Seth Sundar Lāl of Multai who relinquished Rs. 1·34 lakhs of debts due to him. A number of other prominent mālguzārs and moneylenders remitted smaller amounts.

Agricultural banks.

135. Betūl with Hoshangābād was selected for the experimental introduction of agricultural banks in the Central Provinces. In 1905 three banks were opened at Betūl, Shāhpur and Amlā, the Betūl bank having a share capital of Rs. 2650, that of Shāhpur Rs. 1385 and that of Amlā Rs. 2660. The capital is in shares of Rs. 5 which have been sold to proprietors and tenants. In the Betūl bank Rs. 650 were also received on deposit soon after the bank was opened. Money is lent by the banks at 12 per cent. All the banks have a number of tenant shareholders.

PRICES.

Variations in the price of wheat.

136. The staple food grain of the District is now considered to be juār, but the standard adopted for measuring the variations in value of the produce of the land has always been the price of wheat. And this is no doubt the correct gauge because the cultivator, if he grew juār, intended it for his own consumption, while his wheat was sold to pay the rent, at any rate until the recent famines. In the early years of the nineteenth century prices were very low, especially after the restoration of tranquillity on the British annexation in 1818. Between 1800 and 1818 the

average price of wheat was 69 lbs. per rupee, while in 1819 in consequence of the bad harvest of that year it rose temporarily to 34 lbs. Between 1821 and 1824 the price fell to 83 lbs, in 1825 to 128 lbs. and in 1826 to 182 lbs. Subsequently to this there was a certain rise and during the period of the 20 years' settlement made in 1837 the price was about 80 lbs. The average of the five years 1859—63 preceding the 30 years' settlement according to Mr. Ramsay was 47 lbs. and as given in the official returns 54 lbs., while the average for the five years 1890—94 preceding the last settlement was 32 lbs. According to the official returns therefore a rise of 70 per cent took place between the periods preceding the two settlements. But these were the prices at headquarters and those in the interior were considerably lower in past years, the difference showing a natural tendency to decrease with the improvement of communications and the growth of competition in trade. And according to the accounts of one of the most reliable proprietors in the District, the mālguzār of Jhallār, the price of wheat was 80 lbs. per rupee in the years 1860—63 and 33 lbs. in the years 1890—94. The difference between the rates in the interior and headquarters was thus 26 lbs. or 32½ per cent in the sixties and only one pound per rupee at Mr. Standen's settlement, while the rise in price according to the mālguzār's accounts was 139 per cent during the period of settlement. The comparative prices of other grains derived from the same source showed an even larger enhancement, and Mr. Standen accordingly considered it a safe conclusion that the value of agricultural produce had doubled during the period of the 30 years' settlement. Immediately after 1860 prices rose largely in consequence of the American War and were sustained by the Bundelkhand famine of 1868-69. They fell only slightly in the early seventies and rose again to scarcity rates in 1877 and 1878, partly on account of the Madras famine and also because of the poor harvests obtained locally. In 1879 wheat was as high as 17 lbs. to the rupee. After this the rates eased off

but gradually rose during the years 1885—89 until the cycle of bad years began in 1892.

Prices of other food grains.

137. The quinquennial rates in pounds per rupee of wheat, juār and gram between 1860 and 1904 are shown below :—

		Wheat.	Juār.	Gram.
		lbs.	lbs.	lbs.
1861—64	...	42	48	38
1865—69	...	26	34	29
1870—74	...	38	47	35
1875—79	...	33	43	35
1880—84	...	38	50	47
1885—89	...	35	41	39
1890—94	...	32	41	36
1895—99	...	24	33	26
1900—04	...	26	43	33

A noticeable feature of the statement is that in some years gram has been more expensive than wheat, but the crop is of much less importance in Betūl than in the Nerbudda valley and Vindhyan Districts. Since 1891 the highest price of wheat was 16½ lbs. in 1897, while juār was 19½ lbs. in the same year. In 1904 wheat was 32 lbs. or cheaper than in any years since 1891 except 1893-94, and in 1903 juār was 65 lbs. which is the cheapest rate ever recorded for this grain, and little more than half that of the preceding twelve years. The very low rate was, however, due to the considerable increase in cultivation combined with a bumper harvest. The price of wheat in 1904 was thus equal to that of 32 lbs. taken for Mr. Standen's settlement. Kodon, though a most important staple, has only been shown in the returns since 1885. The rates given for it are extraordinarily high, being nearly always above those for gram and juār while in some years its price has exceeded that of wheat. Such rates can scarcely be accepted as correct, and the explanation probably is that kodon has not hitherto been regularly sold in the markets of tahsīl towns from which the

returns of prices are taken, and that the figures represent occasional or scarcity values.

Prices of miscellaneous articles.

138. The wholesale price of *gur* or unrefined sugar produced in the District was Rs. 20 per *khandī* of 7 maunds in 1860 from which it rose to Rs. 60 per *khandī* in 1870, this high rate being accountable no doubt for the large increase in its cultivation which took place during the currency of the 30 years' settlement. Since 1870 there has been a steady decline and in 1894 the price was Rs. 34 per *khandī*, while in 1895 it fell to Rs. 25. Soon after the opening of the railway to Jubbulpore the markets hitherto supplied from Betūl were invaded by the product produced more cheaply in Northern India by canal and tank irrigation, and in recent years the crop statistics indicate that the local cultivation of sugarcane has not been found to yield a profit commensurate with the trouble and risk involved in it. Since 1895 the price has recovered to Rs. 30 or Rs. 40 per *khandī*. Prior to the abolition of the customs line the price of salt was as high as 9 to 12 lbs. per rupee, from which it declined to 18 or 19 lbs. between 1881 and 1890. During the decade 1891—1900 the rate was very consistent at 17 lbs., from which it fell to 19 lbs. in 1903 and 20½ lbs. in 1904 on the first reduction of the duty. Sea-salt from Thāna sells at a slightly cheaper rate than that coming from Ahmadābād. The price of *ghī* was 3 lbs. to the rupee in 1903. Milk sells at from 20 to 30 lbs. per rupee in towns. It is not usually sold in villages. In Multai the milk-sellers are Telis and it is said that they have taken an oath not to put water in the milk, because in that case to drink it would be equivalent to taking water from a Teli, a thing which cannot be done. If a Teli waters the milk he is subjected to the penalty of a caste-feast. Grass varies between 400 and 700 bundles to the rupee in Betūl and between 500 and 1000 in Multai. A cart-load of firewood weighing 8 maunds costs about a rupee and a headload of 24 lbs., 4 to 6 pice. Timberpoles of 12 to 18

inches girth cost Rs. 20 a hundred, and bamboos Rs. 3 a hundred.

WAGES.

Low rates of wages after the famines.

139. After the famine of 1900 the position of the wage-earning and labouring classes had distinctly deteriorated from the customary standard of remuneration which may be said to have prevailed in the period within living memory. Writing in 1902 the Deputy Commissioner said: 'It is impossible in the present dislocated condition of the 'District to ascertain accurately what wages are, and labour 'and service can now be obtained at lower rates than those 'prescribed by custom. Labourers, servants and artisans 'have retained the traditional independence of more prosperous times without the power of asserting it. Beyond 'question their wages as represented in food and necessaries 'were at the beginning of the decade extremely liberal and 'the equivalent money wage was also higher than in many 'parts of the Province. In those days an agricultural servant 'gave up his job on the caprice of the moment and was certain 'of getting equally good employment elsewhere. This class 'still act on their traditions but the man out of employment 'now finds it all he can do to keep body and soul together. 'The customary wages are now only nominally in force, and 'actually wages have fallen whether expressed in money or 'kind since 1899-1900 though the class of the employed have 'not yet awakened to the fact. Many employers who were 'alive to the progress of events began by converting wages 'hitherto paid in kind to a cash wage. The next step in 'many cases was a reduction in the cash wage itself, and 'simultaneously wages in kind were cut down. We are not, 'I think, far off the stage when unskilled labour will be freely 'available at the lowest wage on which a man can subsist. 'Reapers are said to have received one sheaf in 25 ten years 'ago, which was equivalent to nearly 6 lbs. a day for easy 'work. They now get half or less. Coolie wages are still

'alleged to be 2½ to 3 annas a day and the Government rate 'remains at three annas; but I have no doubt that a sharp 'contractor could get as much labour as he wanted for 1½ 'annas. My office concedes that the monthly wages of 'labourers have fallen from Rs. 5 to Rs. 4. The wages of a '*sais*, (*i.e.*, grasscut) who is drawn from the Mehrā class are 'alleged to have remained constant at Rs. 6. To my per-'sonal knowlege a very good stamp of horse attendant can be 'engaged at Rs. 4. Likewise a waterman's wage is still nomi-'nally Rs. 6, but a waterman of the good Gaolī caste is only 'too glad to take service at Rs. 4. It thus appears that the 'wages of unskilled labour and menial servants have fallen 'from 25 to 50 per cent, when taken in the equivalent of food-'grain and necessaries. The demand for labour has gone 'down and the supply gone up. Tenants with their families 'are now forced to do for themselves what they formerly got 'done by hired labour. Many cultivators also are now forced 'on the labour market, having lost their holdings.' It is perhaps doubtful whether the account of the Deputy Commissioner is strictly accurate in every detail, as for instance, when he states that the labouring classes had hitherto been accustomed to throw up their employment at will, with the certainty of being immediately engaged elsewhere. But the description of the labour market may be accepted as correct at the time when he wrote. In the following year, in 1903, the rates of wages given to the writer were practically the same as those quoted by the Deputy Commissioner. And it is desirable to emphasise the depression which existed in Betūl in the years following the famines, in view of the contrast presented to it by the flourishing state of the cotton Districts where no traces of deterioration now remain, and wages have risen very largely. The cropped area of Betūl had fallen by 35 per cent in 1899-1900 from the maximum recorded, and the District had also lost the greater part of the large profits formerly obtained from the valuable sugar-cane crop. Temporarily, the effective demand for labour

must have been enormously reduced, with the result that men had to work for starvation wages. There is no reason to suppose, however, that this state of things would last for more than a few years, and with the recovery of the cropping it may be surmised that even by this time the labouring classes have regained the level occupied before the famine, while the acute demand for workmen in the adjoining cotton Districts must necessarily effect a rapid improvement.

Farm-servants.

140. Farm-servants employed for the whole year are called *harwāha* or *barsālia*, and if employed by the month, *mahantia*. They are generally engaged on Aktī day in the month of Baisākh (April-May). Farm-servants are usually indebted and their debts are carried on from year to year in the employer's account-books. Generally one farm-servant will be kept for every pair of bullocks, but if the cultivator works himself, he need only keep a farm-servant for the second and subsequent pairs. If paid in grain the remuneration of farm-servants is 4 or 5 *khandīs* measured by the small *kuro* of 6 *pailīs* or about 1100 to 1300 pounds of grain annually If paid in cash the remuneration is Rs. 24 to 30 and a present of about 100 lbs. of grain. Cultivators who grow spring crops usually pay in grain and those growing autumn crops in cash. In Multai the rate is Rs. 15 and about 600 lbs. of grain. Besides this the farm-servant has various little perquisites such as a blanket and a pair of shoes and presents of grain at sowing and harvest time. When sugarcane is grown the farm-servant receives a present of *gur* or canes amounting to about 26 lbs. while pressing is going on. Those in the spring-crop country get a day's gleaning free. In Gondī villages Mr. Standen gives annual wages as 2 *khandīs* of kodon, Rs. 10 in cash and Rs. 3 in clothing or a total of Rs. 20-8. Elsewhere the wages, including all perquisites, amounted to about Rs. 30 in 1903, though they may probably have increased in the two succeeding years. Besides the farm-servant, cultivators who do not get

their cattle grazed by their children must have a *bailkī* or boy to graze them. A small boy is paid about a third of the wage of a full-grown man. A mālguzār usually has one or more private *charwāhas* or graziers, and there are also village graziers, but the cultivators will not usually entrust their plough-cattle to these. The annual hire for grazing a cow or bullock is 27 lbs. of mixed autumn and spring grain and for a buffalo it is stated that one rupee a year is paid, though this seems a very low rate. If the grazier milks the animals himself the rates are usually doubled, and if the grazier takes the cattle to a distance the hire is 2 annas a month for a cow and 4 annas for a buffalo.

Field labourers.

141. Daily labourers are called *banihār* and *rozīna*. Cash wages are commonly paid to labourers for weeding and grain for other agricultural work. The autumn crops only are weeded and women are usually employed, the rate of payment being three to four pice a day for the *banihāri din* counted from 11 A.M. to 6 P.M and six pice if they work for a day of twelve hours. For harvesting in the case of juār, a man earns from 2¼ to 4½ lbs. of grain a day and for kodon and kutkī 9 lbs. of unhusked grain. For cutting the spring crops the wage is said to be 1½ lbs. of grain a day in Multai, a very low rate. In Betūl the common wage of one sheaf or *themlā* in twenty is paid. A sheaf gives 3 to 4 lbs. of grain and the cutting of 20 sheaves is 12 hours' work for a man. Another rate is 3 or 4 *kuros* or 40 to 54lbs. of grain for cutting a *khandī* seed-area of land, that is about 4½ acres. But this does not include binding the sheaves. The rates for labour employed in the sugarcane harvest are high, because the hours are long and the work hard. The principal operations are digging up the canes, for which men are paid 2 annas a day ; cleaning the canes of leaves and lopping off the flags, for which women receive 1½ annas a day ; and tending the evaporating pan and furnace, for which men are paid 2½ annas a day. For sowing a garden the rate is an anna for 1000

perīs or pieces containing three or four eyes, which are put into the ground. A stalk contains two *perīs*. Some grain is also given. For well excavation in ordinary soil where no blasting is required an average rate is Rs. 2 a cubit of depth, the diameter being 6 cubits. For cutting grass left on the field a rupee for 1600 bundles is paid in Betūl. The average daily wages for general labour may be taken at 2 annas for a man and 1 anna for a woman as late as 1903, though they have probably increased to some extent in the last two years in sympathy with the higher rates prevailing in Chhindwāra and Berār.

Periods of slack and full employment.

142. As regards the demand for labour at different periods Mr. Standen writes as follows:—'The labourers in open villages are 'usually Mahārs and in the jungles 'Gonds and Korkūs. All these people are habitually at 'certain times of the year on very short commons. From 'the middle of August they get jobs at weeding and reaping 'and in the north of the District gathering *harrā* until Decem-'ber. A number of Mehrās then go to Berār and Wardhā and 'get work on the cotton and juār harvest until January, the 'crop being a good deal later there than here. Except in sugar-'cane villages they have then to tide over a month or two with 'very occasional odd jobs and with the help of what they have 'been able to put by from the earnings of the *kharīf* harvest. 'In sugarcane villages this is a busy time and there is abund-'ance of labour at good rates. But this source of employ-'ment has so largely declined in recent years as to be of little 'importance at present. The wheat harvest keeps all hands 'well occupied for a month, and is at once followed by the 'flowering of the mahuā. The gathering of mahuā is paid 'for by a share of the crop varying from a quarter at the first 'picking to half at the last. *Harrā* picking is paid for in cash. 'In a normal year the pickers are paid at one pice per *kuro* 'for the first picking, two for the second, three for the third 'and four for the last. From the middle of April till the

'middle of August, however, casual labourers can expect to 'get little work even in a normal year, and if they have not 'been able to earn a sufficient provision at the spring harvest 'to carry them on with the addition of the mahuā till the 'weeding season they are in a sorry plight by the beginning 'of the rains. All over the open country and in the jungles 'that fringe the trap plateau there are *gullī* (mahuā nut), '*chironjī*, and *bhilawān* the fruit of the marking nut tree '(*Semecarpus Anacardium*) to be gathered and sold, and these 'take the place of the larger earnings of daily labour in the 'open villages. From the north of the District a number of 'Gonds and Korkūs go to the Nerbudda valley for the spring 'harvest and earn much more than they could in the limited '*rabi* area of the District. Labourers in the villages which 'grow mainly spring crops are the worst off in the rains as 'there is then little demand for weeding. Near large towns 'they collect grass and fuel for sale but in the interior they 'have very little to do. Mahuā is a somewhat uncertain crop 'and two or three days of cloudy weather when the tree is 'coming into flower will destroy the whole of it. The poor 'have then to fall back on the leaves, roots and berries of the 'fields and jungles. They eat the young leaves of the tam-'arind and the little weed *chirotā* (*Cassia Tora*). And they will 'mix a few ounces of grain in a basketful of vegetables or 'leaves.' Many of the labouring classes have a small garden or *makkā bāri* varying from a few square yards to a quarter of an acre and in some of the forest villages to half an acre. In these they sow beans, maize, tobacco or chillies, and the produce of their garden supports them for about a month.

Village servants.

143. The village artisans and servants usually get customary wages in grain for work done for the cultivator. The Lohār or blacksmith receives 54 lbs. of grain for each plough of four bullocks, paid half in the autumn and half in the spring grains. He also gets a basket of grain at seed time and a sheaf at harvest, these amounting to about another 8 lbs., and in

sugarcane villages he receives five stalks daily so long as pressing goes on, and when it is finished a present of *gur*. In return for this he mends all the iron implements of agriculture and sometimes makes new ones if supplied with the iron. Plough-shares must be purchased, and a new share costing a rupee or a little more is required every two or three years. New tyres for carts cost Rs 3 to Rs. 4-8 and the Lohār will put them on once a year free. The Barhai or carpenter gets 5 *kuros* or 67 lbs. of grain and other perquisites like the Lohār. He mends the wooden implements of agriculture and will make one new *hal* and one *bakhar* or paring-plough free every year on the materials being supplied to him. He will also build a cattle-shed of ordinary size for a rupee. The Nai or barber receives from two to three *kuros* or 25 to 40 lbs. of grain for each adult male in the family and nothing for children. Besides this he receives the extra grain at seed-time and harvest like the other servants. He shaves each adult male in the family once a fortnight on an average and cuts their hair when required. When the children of the family are married he gets a present varying from Rs. 2 to Rs. 5. He supplies the leaf-plates and carries the invitations. The Māngin or Māng woman acts as midwife, and is paid one rupee for a boy and 8 annas for a girl as well as her food for the five days that she is in attendance. The Dhobī is usually paid Rs. 3 a year for washing the clothes of a cultivator's family, and they are given to him for this purpose once in 15 days, with the exception of loin-cloths which the people wash every day themselves. The Dhobī also receives fees of a rupee and 8 annas in the case of males and females respectively for washing the clothes at births and deaths. The Chamār's principal business is to mend the *mot* or well water-bag, and he receives from 35 to 70 lbs. of grain annually, the amount being increased as the bag gets older and requires more mending. It does not usually last for more than two years. He also

gives a pair of shoes, a thong and a neck-rope free every year to the tenant and is paid for extra ones. The tenant must also supply the leather for the *mot*. Formerly the skins of dead cattle were the perquisites of the Mahārs or village watchmen, and the Chamār had then to purchase them, but in most villages they have now been declared to belong to the owner of the cattle. The hide of a bullock is now said to fetch three or four rupees and that of a buffalo from three to six rupees. But in the rains the skins do not fetch more than half these prices owing to the risk of their getting spoilt, and most cattle die at this time. The Joshi or village priest receives presents of grain according to the pleasure of the cultivator, and also fees for performing the duties required of him. At a wedding he receives a present of from two to ten rupees and at a death a cow if the family can afford it, and some other articles. During the recent bad seasons the dues of the village servants frequently remained unpaid, and they were reduced to great distress. It is doubtful whether the custom of paying the full customary contributions has regained its force. For oil-pressing the rates paid are 1½ annas for a *kuro* (18 lbs.) of *jagnī* or til and one anna for a *kuro* of *gullī* or mahuā-nut, the Teli also retaining the oil-cake. On 18 lbs. of til or *jagnī* seed they must return 5 lbs. of oil and of *gullī* 4 lbs. The press holds 9 lbs. of til or *jagnī* and can be worked four times a day. From 9 lbs. of oilseed they make 4 lbs. of cake which sells at 2 to 2½ pice a seer. With the press in full working the Teli cannot therefore make more than 7 or 8 annas a day.

Material condition of the people.

144. The District is economically one of the most backward in the Province. As has been seen the rates of wages two years ago were extraordinarily low, and though they have recently increased at headquarters not much progress is as yet visible in the interior. The Gond's dress consists of a loin-cloth with a dirty piece of rag for his head and sometimes a blanket for the rains and cold weather. A house costing as much as

ten rupees is rarely seen in a Gond village. But nevertheless their life is far from being unhappy. Mr. Standen[1] says of them:—'But the jungle tribes are of so hardy a physique that 'they can and frequently do keep themselves in robust health 'on a diet of little more than leaves and roots mixed with the 'husks of grain.' The late Mr. Rogers writing as Deputy Commissioner, described them as follows:—'I find the aboriginals 'here a particularly self-reliant and intelligent class. In my 'opinion what works the ruin of these people is not thriftless-'ness or lack of sagacity but their simple confidence in those 'whom they have got to know well, and a corresponding dis-'trust of what is new or strange. It is these characteristics 'which make them helpless to resist the cunning of the money-'lender.' Those who are farm-servants are nearly always in debt to their masters, who adopt this means of securing their services continuously. The Hindu cultivators are in much the same condition as elsewhere in the Province. They became heavily involved in the famines, but the good crops of the succeeding years up to 1905, the remissions of revenue given by Government and the conciliation of debts which has recently been effected have resulted in a noticeable improvement. The bulk of the population consume large quantities of liquor, and in 1905 the Deputy Commissioner stated that the excise revenue was likely to equal or exceed the land revenue, a notable sign of returning prosperity. On the other hand, with the exception of one or two castes, as the Kirārs, the people are not inclined to display, and it is stated that one of their leading characteristics is the economy practised at caste feasts. The Bhoyars attain this object by celebrating all marriages in one day, thus materially reducing the number of guests at each. The demand for education is restricted to a few of the larger villages which contain traders and moneylenders. Most of the cultivating castes are quite indifferent to it and object to being deprived of the services of their children during the time they spend at school, and the Gonds and Korkūs are

[1] Settlement Report, p. 57.

strongly hostile. The smattering acquired at a primary school is soon forgotten and Mr. Standen states that it was a rare thing to find in a village a single man who could read and write, and even in those where literate persons existed few of them belonged to the tenant class.

MANUFACTURES.

Weaving and dyeing.

145. The local industries are of very little importance, only the most elementary articles required for apparel and household use being made in the District. Coarse cloth is woven by Mehrās in most of the larger villages, mill-spun thread being now generally used. Only about a third of the Mehrās in the District practise weaving and the remainder are daily labourers. Their cloth is considered stronger than the cheap kinds of mill cloth and cultivators often prefer it, though the price is about 25 per cent higher. Mr. Standen says that competition with the mills has made the Mehrās lower their prices by a quarter to a third, but their profits have decreased in a smaller proportion, because the thread which they now get from the mills costs them less than that which they used to spin themselves. Still their profits have largely decreased and this, combined with the rise in the prices of food, makes their condition little preferable to that of a daily labourer. They are also much addicted to drinking more than is good for them. The Mehrās usually only weave white cloth but they have recently begun to produce inferior patterns of English checks. *Newār* tape for cots is made in some places from coarse thick thread spun locally. Cloth for carpets and quilts is dyed locally but coloured cloth for wearing is generally imported, women's *sāris* being obtained from Mowār in Nāgpur. Gunny-bags, matting and rope are woven from *san*-hemp by a few Banjārās. The Gādris or shepherd caste weave woollen blankets, but not in sufficient quantity to meet the demand. Wool is obtained from Hoshangābād and ready-made blankets are imported from Amraoti.

Other articles.

146. Most of the large villages contain some families of Sonārs who make ornaments of gold and silver and also of *kathilā*, a mixture of lead and zinc. The Bharewās are probably an occupational offshoot of the Gond tribe and they make the brass ornaments which are largely worn by Gonds by casting them in moulds of wax. Brass working is carried on in Amlā, Ramlī and Jawalkhedā to a small extent and brass vessels are also imported from Lodhīkhedā in Chhindwāra and from Berār, Nāgpur and Hoshangābād. Most of the Kasārs in the District confine themselves to dealing in imported wares. Brāhmans prefer to use the brass vessels made in Nāsik for religious worship because they are of good quality and easily cleaned. Bell-metal wares are sometimes brought for sale from Mandlā. Most of the iron implements used are imported and the local Lohārs only do repairing work. Mr. Standen mentions that on an average there is only one carpenter for every three villages. The carpenter makes the wooden implements of agriculture and sometimes also carts, but numbers of carts from Hoshangābād are brought for sale at the Malājpur fair. The large variety of articles made of bamboo, as baskets, sieves, winnowing fans and matting are produced by Basors and Māngs for sale within the District and are also sent by road to Berār. Large baskets called *dhulīs* are used for storing grain and in the forest tracts the houses usually consist of bamboo matting plastered with mud. It is also sometimes used for beds instead of cordage of hemp or *moyā* grass (*Saccharum ciliare*). Small mats for sitting on are made from the leaves of the date-palm and also circular screens to cover the head and shoulders in the rains. The pottery of Betūl has some local reputation. In Sālbardī on the confines of Berār is a quarry of hard stone from which mortars, cups and kitchen slabs are manufactured and similar articles are made in Kherī near Saolīgarh. Stone cups are used for storing vinegar and pickles which would

corrode metal receptacles. The only article made of glass is the common bangle. Chamārs manufacture the ordinary shoes worn by all cultivators, which cost about 8 annas a pair, the leather bags used for raising well-water and neck-ropes and thongs for cattle. The Budalgirs, a subcaste of Chamārs, make *budlīs* or leather flasks for holding oil and scents. Mr. Standen remarks :—'Under the 30 years' settle-'ment the hides of dead cattle were the perquisite of the 'village watchman, who collected the skins and sold them to 'the Chamārs. Under the arrangements of the present 'settlement the hides have in most cases been declared to be 'the property of the owners, and it is, I think, likely that 'this may result in the Chamārs being gradually distributed 'more widely over the District.' It is the business of the kotwār to remove the carcasses of dead cattle and make them over to the Chamār, to whom the owner gives orders for any article which he may require to be made from the skin.

Weights and measures.

147. The *pailī* and *kuro* are the measures of capacity generally in use for grain. A *pailī* contains 90 tolās and the *kuro*, 8 *pailīs* or 9 seers. In the Betūl tahsīl a *māni* of 24 *kuros* or 5 maunds 16 seers is generally employed, as in the Nerbudda valley. While Multai tahsīl has the *khandī* of 20 *kuros* or 4 maunds 20 seers which is used in Berār and Nāgpur. For payments for agricultural labour and contributions to village servants there is a small *kuro* containing 6 or 7 *pailīs*. The above measures of capacity are for wheat, but according to a statement given by Mr. Standen the *kuro* of juār contains 18 lbs., the *kuro* of wheat 19·3 lbs., and the *kuro* of gram 18·8 lbs. A *khandī* of wheat land is 5 acres, while a *hal* or plough of land is from 10 to 13 acres. Fields sown with juār and til are sometimes spoken of by the *awar*. The *awar* consists of 8 *harrais* and the *harrai* of 1½ *parainās*. The *parainā* is the cattle goad used in ploughing and is 6 or 7 feet long. The *harrai* is 1½ *parainās*

or 9 to 12 feet broad and its length is that of the field. The *awar* is usually about 1½ acres of land. Salt is sold both by weight and measurement and *ghī* and sugar by weight. A maund of 10 seers is used for tobacco and of 14 seers for *gur*. A *khandī* of *gur* is 20 maunds or 7 Government maunds.

Markets.

148. The District contains 37 weekly markets in the Betūl tahsīl and 23 in Multai, this being equivalent to one for every 64 square miles of total area or 42 square miles excluding Government forest. Cattle markets are held at Birūl, Betūl and Kherlī, stock from the Nerbudda valley being brought for sale at Betūl and from the Chhindwāra District at Kherlī. Nearly 4000 head of cattle change hands annually at Birūl and about 1500 at the other places according to the statistics of the years 1903-05. The average selling price was Rs. 19 a head at Kherlī and Rs. 15 at the other two markets. Stock bred on the Khāmla plateau are generally taken for sale to the fair held at Bairām across the Berār border. The most important markets are at Betūl, Pādhar, Rondhā, Shāhpur and Chicholī in Betūl tahsīl, and at Multai, Birūl and Ramlī in Multai tahsīl. Forest produce is usually sold at Shāhpur, Chicholī and Khumai. Only retail transactions take place as a rule at the markets. Cultivators and labourers sell headloads of grain, oilseeds and forest produce and buy oil, salt, cloth, ornaments, cocoanuts and vermilion for sacrifice, or such little luxuries as betel-vine, areca nut and country spirits. The markets also serve as distributing agencies, petty itinerant traders buying in one place and selling in another at a small profit. Telis and Kalārs are usually engaged in this business, as they also go round the villages and buy up grain for export at the houses of the cultivators, subsequently disposing of it to the large dealers at a slight profit. But from the north of the District they take grain direct to Itārsi and many cultivators and proprietors carry their grain for sale to Itārsi in their own carts, while after

the harvest cultivators ply for hire on the Itārsi road. The wealthier traders of the District are, says Mr. Standen, all moneylenders first and merchants afterwards. A considerable proportion of the exports no doubt passes through their hands, but much of it comes to them in the course of their moneylending transactions. This applies particularly to *gur*, because it is usual for cultivators who owe much to hand over the produce of their cane-gardens every year in a lump to their creditors, retaining for their subsistence the grain which they have raised on their wheat fields and *bārās*. The wholesale traders of the District are principally Mārwāri Baniās and Muhammadan Cutchīs.

Fairs.

149. Annual fairs of some importance are held at Malājpur in the Betūl tahsīl and at Multai and Sālbardī in Multai tahsīl, and smaller gatherings at other places. Household utensils, iron for agricultural implements and finery and small articles for personal use of various kinds are sold at these fairs, and they provide for many inhabitants their sole opportunity during the year for the purchase of brass vessels. Each fair is, however, primarily a gathering for a religious object. That at Malājpur near Chicholī is the most important and lasts for a month in January, the attendance on the principal day, the 15th of Pūs, being 20,000 persons while for the rest of the month about 5000 persons are present daily. Some 250 temporary shops are established, the value of the goods sold being Rs. 30,000 on an average in the last three years, and some hundreds of cattle are also brought for sale. The fair at Multai lasts for three weeks or a month in October and November, the principal day being the full moon of Kārtik, and the object of the assemblage being to bathe in the sacred tank of Multai, the reputed source of the Tāpti river. The attendance was until recently about 20,000 persons but is reported to have decreased. Carpets woven and dyed at Ellichpur, silk-bordered cloths from Nāgpur, brass vessels and large *karāhis* or pans for boiling sugarcane

are brought for sale, from two to three hundred shops being opened. Sālbardī is a village on the Berār border which contains a well-known shrine of Mahādeo in a cave and sulphur springs. The stream of the Māru passes near the village. A small fair is held here on the day of Shivrātri in March, lasting for three days, and attended by people from the District and from Berār. On the same day of Shivrātri a small fair is held at Bhopāli, a village in the north of the District some 18 miles from Badnūr, lasting for about 7 days. The village is in Government forest and the river Denwā flows by it. Muktāgiri, on the southern hills bordering Berār, contains a group of Jain temples and a Jain fair is held here on the last day of Kārtik (October-November), the attendance being about 5000. Small local gatherings also take place at Chīchthāna on the Tāpti river, and at Kherlā near Betūl.

TRADE.

Trade in former years.

150. At the time of the 30 years' settlement the District had a certain amount of trade by road, the value of which was estimated at Rs. 3 lakhs, but was probably larger. Two important staples, opium and sugarcane, were then exported, one of which has been entirely lost, while the exports of the other have greatly declined in recent years. Timber and other forest produce were sent to adjoining Districts, rice to Burhānpur and other cereals to Nāgpur and Berār, being carried thence to the western coast by Banjārās.

Trade at present. Exports of agricultural produce.

151. The bulk of the produce exported now goes to Itārsi station, while from the south some interchange of commodities is effected with Berār, pack-animals having formed, until recently, the only practicable method of transport. No statistics of trade can therefore be given. Mr. Standen estimated that the balance of agricultural produce available for export at the time of his settlement, after satisfying the

requirements of the population was 16½ lakhs of maunds of food-grains, 130,000 maunds of oilseeds, and 300,000 maunds of *gur*, the value of which at the prices then ruling would be Rs. 47½ lakhs. A consideration of the figures of exports of other more important Districts renders it however improbable that Betūl sends away so large a surplus of produce, and in any case the exports of *gur* which contributed Rs. 17½ lakhs, have largely declined since Mr. Standen wrote. Wheat was until recently the staple export of the District, but the area under it has considerably declined and it is probable that as in other Districts the exports fell to a minimum during and after the famines. Gram is also exported to a small extent and some quantities of the pulses urad and tiurā are sent to Berār, but most of the tiurā grown is probably required in the District as a cattle food. The bulk of the grain goes to Itārsi. Until recent years juār was imported for consumption from Berār, but as the area sown locally has increased, an outside source of supply is no longer required and when a good crop is obtained a surplus is available for sale beyond the District. Oilseeds are probably now the most important exports. The area under til has largely increased and it is grown principally for the foreign trade, while Mr. Standen remarks that *jagnī* or *ramtillī* is sent in considerable quantities to Berār. Til is grown principally towards the northern and southern borders. Linseed is not an important crop in Betūl. The cultivation of cotton has largely expanded in the villages bordering on Berār and nearly the whole crop finds its way to the railway there. It is now grown as far north as Badnūr. *San*-hemp has now become an important product and Betūl is one of the leading Districts in respect of its cultivation. It is principally grown by Gonds and sold to the Cutchī dealers who despatch it to Itārsi and also to Chāndol in Berār. *Ghī* is exported but is not the same source of income here as in the Vindhyan Districts. The Betūl *gur* or unrefined sugar has more than a local fame. It

is very sweet but at the same time also expensive. At the 30 years' settlement 7000 acres were under sugarcane and in 1892-93, 10,400, but the average for the years 1903-05 was between 3000 and 4000 acres. The average area of the years 1891-95 was 8000 acres and Mr. Standen, taking this to be the standard, calculated that it gave a surplus for export of about 3½ lakhs of maunds of the value of Rs. 17½ lakhs. On the present area the surplus would be little more than 100,000 maunds and its value Rs. 5 lakhs. The local product is now undersold even in the District by the sugarcane of Upper India and Bengal, which is irrigated from canals and tanks. The bulk of the *gur* exported is sold in the neighbouring markets of Chāndol, Sendurjanā and others on the Berār plain, juār being sometimes brought back in exchange, and it is also taken to Itārsi and Hardā. Potatoes are grown in small quantities in the neighbourhood of Bhainsdehī and sent to Berār. The exports of hides and skins have probably increased considerably in recent years owing to the large mortality of cattle and the number of hide-dealers was much higher in 1901 than in 1891.

Forest produce. Timber.

152. The only other important exports are those of forest produce, consisting of the timber of teak and *tinsā*, bamboos, and minor produce. Mr. Standen gives the following interesting information about the timber trade[1] :— 'Except in the 'Shāhpur forests the timber is extracted almost entirely by 'the local Gond and Korkū cultivators. Every year in the 'hot weather these men go to one of the mālguzāri jungles 'in their neighbourhood of which the owner wishes to 'cut some trees, or to a coupe of Government forest, 'and taking a license from the mālguzār or the Forest 'Department, each man cuts a few logs and carries them to 'the best market available. If he has a pair of bullocks and 'a cart, and can get his cart to the jungle, he will carry 9 'or 10 small logs of teak in one journey ; if he has no cart or

[1] Settlement Report, para. 98.

'there be no road to the jungle, he ties three or four logs 'to the bullocks' yoke and drags them to market along the 'ground ; this is called a *karrās* of wood. Much timber is 'brought out of the southern jungles in this way. If bullocks 'are not to be had, a whole family will sometimes take a load 'of wood to the market, each member balancing one small 'log on his or her head. The Gonds, both men and women, 'are very strong and capable of great endurance, and think 'little of carrying a heavy load like this for 30 miles each 'way once a week for a month on end. They make a mess 'of kodon and various jungle fruits and roots into a hard 'ball which they sling upon their back, and with this and 'an old gourd of water are equipped for the longest journey. 'Nearly all the timber is taken to market in the hot weather 'when there are no crops on the ground to watch and no 'very urgent agricultural operation to put in hand in jungly 'villages. I think I am right in saying that most of the 'timber taken for sale and for the use of the licensee is cut 'from mālguzāri forest, probably because the fee is generally 'lower than in Government forest. The fee taken by the 'mālguzār varies very much from year to year and even 'within small areas in the same year. A fair fee in the 'Tāpti jungles is considered to be R. 1-8 per *karrās* and 'Rs. 3 per cart. Four logs is, I think, the maximum that can 'be taken on a *karrās* and three is more often the number. 'They are generally from 10 to 15 feet long and about 4 'inches cube, when roughly shaped by the Gonds in the 'jungle. For a log of this sort a rupee is the outside 'price at the bazar. The exporters work hard for a very 'small profit. Much of the timber taken out of the Shāhpur 'jungles is cut and carried by Chamārs who live in the 'villages near Itārsi in the Hoshangābād District. The 'jungles there are so much more accessible that the carts 'can be loaded more heavily. The bullocks used are also 'larger. A full load may be as much as 25 or 30 logs, for 'which the mālguzār takes a fee up to Rs. 9. Except in the

'Shāhpur country teak is the only timber exported in any 'quantity and indeed almost the only timber taken out of the 'District. But towards Shāhpur much of the teak was cut 'out of the forests years ago, and in default of it there is a 'strong demand for *tinsā*, *haldū*, *sāj* and *kohā*. The timber 'from the Tapti is disposed of at Khumai, a very large bazar 'on the Berār border; that from the Saolīgarh and Khāmāpur 'jungles goes to Rahatgaon in Hoshangābād and the Shāhpur 'timber to Itārsi.' *Tinsā* is now however exported from the south of the District, and many carts carrying teak, *tinsā* and bamboos go to Paratwāra bazar in Berār. The annual revenue from sales of timber in Government forest was about Rs. 35,000 in 1903. Bamboo matting and baskets are also taken in large quantities for sale in Berār.

Minor products. Mahuā.

153. The principal minor products exported are mahuā flowers, myrabolans, *chironjī* or the fruit of the *achār* tree (*Buchanania latifolia*) and *rūsa* or *tikhāri* grass (*Andropogon Schœnanthus*). As regards these Mr. Standen writes[1]:—'Mahuī is more or 'less abundant in all the jungle-covered parts of the District; 'but is particularly well grown and productive in the sand-'stone country. The produce is largely in excess of the local 'demand. The greater part of the mahuā produced in 'the District comes from the mālguzāri area, because 'trees in cleared and cultivated land bear much more 'heavily than those in jungle and the wild animals eat 'much of the flower which falls in the forest. It is 'extracted from the Government forests by the coolies of 'the contractors, who buy at auction the right to collect the 'mahuā of certain areas. In liberally managed mālguzāri 'villages it is the practice for the mālguzār to allow each 'tenant to take the fruit of a few mahuā trees free of charge. 'The produce of the rest of the trees is collected by the 'inhabitants of the village and divided with the mālguzār. 'The usual practice is that the mālguzār gets a third of the

[1] Settlement Report, paras. 99-101.

'first gathering, a half at the second and a quarter at the third. 'After this anything that remains, may be taken as *sīla* or 'gleaning. But the details vary from village to village. 'The poor make much use of the flower as an article of food, 'and indeed in jungle villages it is as much a staple food crop 'as kodon or kutkī. But in an average year they always 'gather something more than they require for their own 'consumption and sell it at the nearest weekly bazar to one 'of the numerous petty traders in jungle produce or to the 'local Kalār. Some of the mālguzārs who have much mahuā 'are themselves traders in jungle produce and carry it to 'market themselves, while others sell it to the merchants at 'Shāhpur, Badnūr, Nīmpāni, Chicholi or Bhainsdehī.'

Myrabolans.

154. 'At the 30 years' settlement the trade in *harrā* was 'very small, and except on the Khāmla 'plateau, the only place in the trap 'country where it is found in any quantity, the mālguzārs 'derived no income from it. In the north of the District it 'was collected by the poor and sold to Banjārās, who carried 'it on pack-bullocks to Seonī-Mālwa and thence to Rājputāna. 'But the price was so low that nothing could be realised by 'the proprietors of trees. It was used then, as now, in India 'for dyeing, its tanning properties being apparently little 'known in this country. The demand in Berār was stronger 'and the owners of *harrā* on the Khāmla plateau made some- 'thing out of it. The difference between the value of *harrā* 'on the plateau and elsewhere in the District at the 30 years' 'settlement is indicated by the fact that tenants on the plateau 'paid at settlement and pay now very heavy rents which cover 'the price of *harrā* trees on their land. Soon after the 'opening of the railway to Jubbulpore the trade sprang up 'with Europe and from that time the crop has been a valuable 'asset of many villages in the sandstone country. The price 'has been subject to fluctuations, but has generally been 'between Rs. 3 and Rs. 5 per *khandī* of 7 maunds at Nīmpāni 'and Chicholi in the centre of the *harrā* country. A great

'impetus was given to the trade by the favourable reports of 'experts on some samples which were shown at the Indian 'and Colonial Exhibition of 1886, and prices for a couple of 'years went up to about Rs. 8 per *khandī*. The unequal 'quality of the crop affects the European demand unfavour-'ably. It is due to the fact that the two crops, of which one 'sets in January and the other in August, are harvested 'together, so that the nuts are of different degrees of maturity 'and contain a varying quantity of tannin. Sometimes also 'no proper arrangements are made for protecting the crop 'from the heavy dew of the cold weather after it is harvested, 'and under these conditions the nut turns brown and is of 'less value in the market.

Other forest produce.

155. '*Chironjī* is the kernel of the berry of the *achār* tree 'and is used in sweetmeats. *Gullī* is the 'nut of the mahuā; an oil is expressed 'from it, which is largely used locally both as a food by the 'lower classes, and for moistening and preserving leather. 'It is also, I believe, exported in considerable quantities to 'Europe, where it is used in the manufacture of various 'substitutes for butter. Little business is done in lac, the 'reason being, I think, that the Gonds consider it unclean and 'may not touch it without suffering penalties.' Lac is grown only where Korkūs are numerous, and is exported to Northern India. The extension of the lac industry is now receiving the attention of the Forest Department. *Tikhāri* or *rūsa* grass (*Andropogon Schoenanthus*) which gives the product called ginger grass oil, grows all over the District. About 50 maunds of oil are distilled annually and exported to Turkey, Aden and France, where it is used in the manufacture of soap and scent. In India it is used as a medicine for rheumatism. The retail price was formerly Rs. 10 a quart bottle, but has declined to Rs. 7, or Rs. 8, in 1903. In the north of the District the gum of the *sāj* and *achār* trees is collected and exported to Itārsi, and in the south the oil given by the fruit of the marking-nut tree (*Semecarpus*

anacardium) is expressed and sent to Berār. A small quantity of honey is exported to Itārsi.

156. The most important imports are salt, sugar, cloth, thread, iron, kerosine oil, spices and cocoanuts. The bulk of these articles, with the exception of much of the cloth and thread, which comes from Mowār in the Nagpur District and from Nāgpur itself, are brought from Itārsi. Salt is obtained by the Cutchī merchants who come to Betūl for 8 months in the year and go to their own country for the rains. It is obtained both from the salt marshes near Ahmadābād and from the Thāna District of Bombay, the latter being known as small salt. Mauritius sugar is commonly used. During the last few years *gur* or unrefined sugar has begun to be imported from the United Provinces in small slabs called *battī-kā-gur*. It is inferior to the Betūl sugar and has a saltish taste, but is cheaper, 8 or 9 seers of it being obtained for a rupee as against 6 or 7 of the local product. Thread is principally obtained from the Nāgpur mills, through agencies established in the District, and cheap mill-woven cloth is sold at the annual fairs. Some of the principal Mārwāris and other moneylenders and grain merchants have cloth shops also, at which they sell English piece-goods and the more expensive kinds of native cloth. Cloth covers for carts are brought from Hoshangābād and Berār. Iron is sold only at Betūl, Badnūr and Multai by three or four shopkeepers. The iron mill for pressing sugarcane invented by Messrs. Mylne and Thompson of the Bihiạ estate in Bihār was introduced into the District some time before 1890 and Mr. Standen states that some hundreds had been purchased at the time when he wrote. A cheaper and less efficient imitation of this mill had subsequently been introduced from Delhi. Large pans for boiling sugarcane are brought from Nāra in Wardhā District, and implements of country iron are brought from Jubbulpore. Brass vessels are obtained from Lodhīkhedā in Chhindwāra, and from

Imports.

Umrer and Hoshangābād and are largely sold at the annual fairs. Juār was up till recently imported from Berār in exchange for *gur* and a little wheat. Of spices, turmeric is imported from Berār and Bombay, and chillies, though a quantity are grown in the District, are also imported from Berār as they are a very favourite article of food; a man will sometimes eat as much as two pounds a week of them. The Marāthā castes are very fond of betel-leaf and it is obtained from Berār and Rāmtek, not being produced in the District. Glass globes, chimneys, enamelled ware and stationery are imported from Bombay by Bohrās. Tobacco and *bidīs* or native cigarettes are brought from Berār. Country carts from Hoshangābād are sold at Malājpur fair.

COMMUNICATIONS.

Projected railways. The main trade route to Itārsi.

157. Betūl will be the last District in the Central Provinces to be provided with railway communication. No part of it is at present (1906) traversed by a railway line, but this isolation is not likely to last long. A project for a loop line from Nāgpur to Amraoti, which would pass through the north of the Wardhā District and from some point on which a new railway will be taken through Betūl District to Itārsi is under consideration. This will probably be in supersession of a former project for a railway running direct from Wardhā to Itārsi through Multai, the survey of which was completed in 1902. Feeder-lines are also projected from Multai to Chhindwāra on the east and from Betūl to Ellichpur and Amraoti on the south-east. Mr. Standen describes the position of the District as follows [1] :—'North and 'south of Betūl lie the fertile valleys of the Nerbudda river 'and of Berār, each with a considerable local demand for the 'jungle produce of Betūl and the railway to carry elsewhere 'the grain and oilseeds for which there is no market at

[1] Settlement Report, para. 96.

'hand. On the north the edge of the lowlands is some fifty 'miles from the nearest open villages of the District and the 'railway about five miles further. On the south there are 'only some five to twenty miles of hilly country between the 'rich villages of Berār and the best wheat-growing tracts of 'Betūl, but the railway is forty miles further'. The north-west road which runs from Nāgpur through Betūl and Hoshangābād to the north traverses the District almost from end to end, passing Chichandā, Multai, Betūl, Badnūr and Shāhpur and leaving the District at Dhār. It is now metalled almost throughout and provided with bridges and causeways. The distance from Itārsi junction to Badnūr is 55 miles, from Badnūr to Multai 28 miles, and from Multai to the Chhindwāra border 14 miles, the length of the road in the District being 77 miles. Its direction is south from Itārsi to Badnūr, and then south-east through Multai to Nāgpur, the road south of Multai being of minor importance as compared with that between Multai and Itārsi. Up till 1896, the only routes leading to Berār were village tracks maintained at a rate of five rupees a mile and almost impassable for cart traffic over the southern *ghāts* of the Sātpurās. In consequence of the superior character of the road communications on the north, nearly all goods not required for consumption in the Amraoti and Ellichpur Districts of Berār were sent to the railway at Itārsi. Feeder roads lead on to the main route from Chicholī in the west at Nīmpāni and from Rānīpur in the east at Shāhpur, but these though carrying some traffic are only maintained as village tracks. With the exception of the villages lying south of the Tāpti in the west, whose produce goes to Amraoti and of exports of timber from the Saolīgarh tract to Rahatgaon in Hoshangābād and of some trade between Chirāpātla and Hardā, the large bulk of the exports of the District are carried by the north-west road to Itārsi junction. The construction of the railway will necessarily almost entirely remove the importance of this road.

Other roads.

158. Of the other routes leading from Badnūr, the Ellichpur road through Jhallār is partly metalled and runs for 51 miles in the District; some timber is taken to Berār along this road. The Badnūr-Hardā road has a length of 51 miles to the border, passing Chicholī and Chīrāpātla and is gravelled. A gravelled road also leads for twenty-two miles from Badnūr to Atner. From Multai there is a road to Chhindwāra, but it is of no importance for trade. Nor is there much traffic on the north-west road beyond Multai, though cloth, thread and fruits and spices are brought along it from Nāgpur. Of the routes connecting the south of the District with Berār, the road leading from Multai through Pattan by Bikatghāt to Sendurjanā and on to the Ellichpur-Amraoti road at Baddur was made passable for cart traffic in 1897 and has recently been metalled. Produce is taken along this road to the important market of Chāndol in Amraoti District. The Badnūr-Ellichpur road has also been made practicable for carts down the passes. Two other routes lead to Berār, one through Atner to Hirādehī and the other from Multai through Māsod down the Dābka *ghāt*, but these are at present only village tracks. Mr. Standen writes of them[1]:—'The former is little used, but the latter, at all events 'until a couple of years ago, before the other two were 'improved, carried much traffic, as it is the shortest route 'from the wheat-growing villages round Māsod and Pohni 'to Berār. Until this road is in good order and passable for 'fully laden carts the southern communications of the District 'cannot be considered sufficient. The produce of this area 'which is destined for the Berārs has now to go either twenty 'miles east or twenty miles west to find a fair road across 'the border.' Another road runs across the south of the District for 34 miles from Māsod through Atner and Sātner to Bhainsdehī. The total length of metalled roads in the District is 95 miles and of unmetalled 152 miles, and the

[1] Settlement Report, para. 96.

annual expenditure on maintenance is Rs. 48,000. The Public Works Department are in charge of 244 miles of road and the District Council of the remainder and of some village tracks, on which latter they spend only about Rs. 600 annually.

Methods of transport.

159. Within the area of the central plateau there are cart tracks in all directions and though they are often rough, the only serious obstacle to traffic in the open season is that part of the Tāpti valley which lies between the point where the river enters the Betūl tahsil and the western border of the plateau. On the borders of the District passable roads are scarce. In the forest country of Khāmāpur and Mohtā to the west carts are hardly ever seen and there are only two roads on which it is possible to use them. In the sandstone tract the valleys are wider and more continuous and there are several tracks by which carts can pass without much difficulty. In the south of the District a considerable amount of produce has until recently been transported by means of pack-bullocks and to a less extent of donkeys. But the use of carts is now rapidly increasing. Many are obtained from Hoshangābād and are sold at the Malājpur fair. Their capacity appears to be smaller than those of the Nāgpur country and the ordinary load is reported to be ten maunds or about seven cwt. Small carts with solid wheels are sometimes used for the carriage of grain in the fields, and light trotting carts have been introduced from the Nāgpur country. The usual rate of hire on the main roads is one anna a mile and on other roads a little more. The hire of a pack-bullock is between a quarter and a third of that of a cart.

CHAPTER VI.

FORESTS AND MINERALS.

FORESTS.

Government forests. Principal trees.

160. The Government forests lie principally along the border of the District enclosing on the north, west and south, the extensive cultivated tableland in the centre. Their total area is 1324 square miles or 35 per cent of that of the District. Of this 1181 square miles are A class or permanent reserves, while 143 square miles have been demarcated for excision and colonisation as required. For administrative purposes the forests have been divided into the six ranges of Rānīpur, Asīr, Bhanwargarh, Saolīgarh, the Tāpti and Dābka. With the the exception of portions of the Rānīpur, Asīr and Bhanwargarh ranges in the north the forests are generally situated on steep hills and slopes, the most hilly areas being the Tāpti and Dābka ranges in the south. The whole division lies within the teak area, but here as elsewhere the teak generally avoids the Gondwānas and metamorphic rocks, except where the excessively free and dry character of the soils formed by their disintegration is more or less modified by the presence of trap. Thus in the Asīr and parts of the Rānīpur ranges situated on the sandstone hills to the north, it is scarce, while elsewhere its growth is abundant and flourishing. Over a large area of the division teak may reach a height of 60 feet, and while still remaining sound a girth of 4½ feet at breast height. Some of the larger individuals attain to 6 feet, but under the extremely adverse conditions which have hitherto prevailed stems above 5 feet in girth are rare. The second timber tree in importance is *tinsā (Ougeinia dalbergioides)* and this is less selective than teak, extending into open black cotton soil on one side and over hillsides of Gondwāna formation on the other. This tree

reproduces itself from seed provided that the soil is loose and free of living grass roots, while its extraordinary power of throwing out root suckers especially adapts it for coppice treatment and quickly gives the stem of moderate size suitable for the purposes for which *tinsā* wood is employed. Bamboos (*Dendrocalamus strictus*) abound throughout the teak area, especially on slopes and in ravines. The only other tree of first rate economic importance so far as the local forests are concerned is the *harrā* (*Terminalia Chebula*), valuable on account of the extensive trade in its fruit, the myrabolans of commerce. It delights in well-drained but moist sandy soils or upland plateaus receiving a good rainfall and enjoying a cool mean temperature during the hot weather. The tree is at its best in the Bhanwargarh and Khāmāpur forests.

Classes of forest.

161. Teak becomes almost pure on the lower slopes of hill-sides with a northerly or north-easterly aspect, and on the alluvium deposited along the banks of rivers and at the bottom of deep ravines. Reproduction by seed is easily obtained if the soil is kept more or less free of grass for two or three years in succession. Its principal companions are *tinsā*, *lendia* (*Lagerstrœmia parviflora*) and *sāj* (*Terminalia tomentosa*). Mixed forest with teak is the most common type, occupying more than half the area of the division. In this teak and *tinsā* are about equally represented and the other principal species associated with them are *sāj*, *lendia*, *dhaurā* (*Anogeissus latifolia*) and *sāleh* (*Boswellia serrata*). Mixed forest without teak is predominant in parts of the Asīr and Rānīpur ranges where the soil is formed from sandstone rock, *sāj* and *tinsā* being the most important species where the soil is good. The higher scarped slopes of southerly aspect and the dry hill tops are generally covered by *sāleh* and this nearly useless tree is common in the Dābka range and the slopes immediately overlooking the wide hot plains of Berār. Bamboo forest is very valuable as it is exploitable everywhere. The species is abundant in valleys and ravines and on all slopes except the upper portion of those

with a southerly aspect. It is almost wanting in the drier and poorer localities of Dābka range and in parts of Bhanwargarh and Asīr ranges.

Statistics of revenue.

162. The following statement shows the receipts under different heads of revenue at varying periods:—

Year.	Timber.	Fuel.	Grazing and grass.	Bamboos.	Minor produce.
	Rs.	Rs.	Rs.	Rs.	Rs.
1881-82	5,000	5,000	24,000	4,000	7,000
1891-92	14,000	1,000	25,000	14,000	14,000
1901-02	33,000	4,000	18,000	11,000	10,000
1902-03	23,000	4,000	19,000	12,000	7,000
1903-04	17,000	4,000	20,000	16,000	10,000
1904-05	21,000	6,000	25,000	15,000	10,000

Teak, *tinsā* and bamboos are the only timbers in great demand, and these yield the bulk of the Government revenue. They are largely exported to Berār by road and used for building purposes. The agriculturists of the District use *tinsā* and the inferior species as *lendia* (*Lagerstrœmia parviflora*), *dhaurā* (*Anogeissus latifolia*), and *khair* (*Acacia Catechu*) for farm implements. Catechu was formerly made in the District from the wood of the *khair* tree, but the bulk of the workers went to Berār in the famine of 1896-97 and did not return. *Rūsa* or *tikhāri* grass (*Andropogon Schoenanthus*) is found throughout the District and yields a revenue of about Rs. 6000 annually. The oil extracted from it is exported to Turkey and France and used in the manufacture of scent and soap. Its selling rate is Rs. 7 or Rs 8 a bottle, and was formerly Rs. 10. Lac cultivation is in its infancy, but it is hoped will do very well in a few years. The rearing of tasar silk-worms has also been begun on a small area, some Dhīmars having been obtained from Ratanpur for local demonstration of the method. Gum, flowers and fruit of the mahuā, *chironjī* the fruit of the *achār* tree, honey, wax and myrabolans are other minor products. The number of animals grazed in the forests was over 100,000 in 1891-92, but fell to below 80,000 in

1901-02, owing to the necessary restrictions placed on grazing. It increased again to 144,000 in 1904-05, apparently owing to the general recovery of prosperity and the introduction of the more favourable scale of fees for agriculturists.

Management of forests.

163. The following statement gives statistics of revenue and expenditure:—

Year.	Revenue.	Expenditure.	Surplus.
	Rs.	Rs.	Rs.
1881-82	47,000	19,000	28,000
1891-92	83,000	37,000	46,000
1901-02	81,000	41,000	40,000
1902-03	70,000	39,000	31,000
1903-04	72,000	41,000	31,000
1904-05	80,000	43,000	37,000

In 1864 the Betūl forests were included in the western division with headquarters at Hoshangābād. They were constituted a separate division in 1878, but until 1883 a large proportion of the area was managed under the orders of the Deputy Commissioner as unreserved forest, no conservation being enforced beyond the restriction of fellings of certain of the more valuable species. In the latter year all the forests were placed on the same footing and the license system was introduced. The staff consists at present (1905) of a Divisional Forest Officer who is a member of the Provincial Service, 3 rangers and 5 deputy rangers, 13 foresters and 107 permanent and 21 temporary forest guards. A system of felling series was first introduced in 1893 and a regular working-plan for the reserved forests was drawn up in 1896, embracing the period of 30 years from 1899-1900. According to this the ranges are divided into regular felling series in those areas where a commercial demand for the produce exists, and into *nistār* series where the only customers of Department are the residents of adjoining villages. Each felling series is divided into twenty or thirty coupes to be cut over annually in succession and each *nistār* series into five

coupes which will be open for the removal of produce for one year in succession. Should an increased demand arise in any area now worked as a *nistār* series, it will be subdivided into an increased number of coupes and converted into a felling series. As the demand for forest produce is very much below the possible outturn and inferior species and unsound, sickly or crooked trees form the greater part of the present crop, the treatment must for the present be a course of coppice improvement fellings, supplemented by special cultural operations to cover all suitable areas with teak and *tinsā*. When in the case of any area the demand attains at least the level of the production, the system of coppice with standards will be adopted as the one most suitable for all the more valuable species, especially for teak, which under it can easily hold its own against all comers. In forest of the types here prevalent, no system of natural regeneration by seed would at all answer. The following trees are considered as standards and marked to be preserved in both series:—All growing trees belonging to timber-yielding species and capable of surviving till the end of the rotation; all *harrā* trees; all mahuā, mango, *achār*, *tendū* and edible fig-trees in a bearing condition; and all trees and shrubs intended for the cultivation of lac whatever their numbers and distribution. In 1903-04 a system of fire-protection was applied to more than half the area of reserved forests.

Private forests.

164. Besides the Government forests the District contains nearly 700 square miles of private forest, being equivalent to 26 per cent of the village area, of which about 450 square miles are tree forest and the remainder scrub jungle and grass. The area of Government and private forests combined is about 2000 square miles, or 53 per cent of that of the District. The income from the mālguzāri forests was estimated by Mr. Standen at Rs. 45,000, derived principally from sales of timber, myrabolans and mahuā flowers. As regards these

sources of income he remarks as follows [1] :—'The normal 'rate for mahuā at harvest time is R. 1-4-0 per *khandī*, while 'the price rises to Rs. 5, or Rs. 6 per *khandī* shortly before the 'harvest. The mahuā flowers much more freely in cultivat-'ed land than in jungles, and moreover much of the crop 'produced by trees in the forest is eaten by wild animals. '*Harrā* supplies a larger income than any other item, but 'the tree grows in large quantities only in the sandstone 'country and on the Khāmla plateau, and elsewhere it is 'not sufficiently common to yield the mālguzārs more than a 'very small income. The price has rarely been below Rs. 3, 'or above Rs. 5, per *khandī* of 360 lbs. at Nimpāni and 'Chicholī. The trees flower in May and again in the begin-'ning of August. The flower is delicate and shrivels up at 'once if it is exposed to the murky condition of the atmos-'phere which not infrequently obtains in the hot weather and 'is known locally as *dhundhar*. The August flower is fre-'quently knocked off by heavy storms before it has been 'fertilized and the crop which sets then is never a heavy 'one. The mālguzārs never export timber themselves 'but grant permission on payment of a fee per cart-load, 'varying from Rs. 3 in the wilder parts of the District 'to Rs. 9 in the Shāhpur country. Of late years the 'mālguzārs have issued licenses on printed forms. The 'forests have been considerably overcut in the past. Grazing 'yields an income only in a comparatively few villages along 'the Tāpti, the Tawā and other perennial streams, where 'herds of buffaloes are kept by Gaolīs for the production of '*ghī*. These men pay grazing dues generally at the rate of '4 annas per buffalo per annum, while fees are also received 'for agricultural cattle sent from the open villages in the 'rains. Cows are never charged for, or if any mālguzār 'does make them pay he is ashamed of it. Along the large 'nullahs in the open black-soil country there are often great 'numbers of wild mango trees. The crop is sold to Kunjrās

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1 Settlement Report, paras. 233–235.

'and others in the neighbourhood of large villages, but else-'where no income is derived from it. The fruit of the '*achār* tree is valued for the kernel, which is used by sweet-'meat makers. *Gullī* is the mahuā nut and an oil is pressed 'from it and used both for softening and preserving leather 'and by the poorer classes for preparing their food. It is 'usual to allow the residents of a village to take all the '*chironjī* and *gullī* subject to the payment of a pound or two 'of *chironjī* and 10 to 20 lbs. of *gullī* to the mālguzār. There 'is not much bamboo in the mālguzāri jungles except on the 'hills north of the Bel. It is extracted in the same way as 'timber, but the fees are lower. It is only in villages near the 'open country that the mālguzārs obtain an income from sales 'of wood for fuel and fencing. The greater part of the 'receipts from fuel are obtained from sugarcane cultivators 'who require it for boiling the juice. In some villages near 'large towns, the labouring classes pay R. 1 per house per 'annum for the right to collect dry wood and sell it in the 'bazar. *Tinsā*, *lendia* and *dhaurā* saplings are generally used 'for fencing. The income from this source is not large, as 'the majority of villages have sufficient forest to supply the 'cultivators with the fencing they require. The income 'from lac is small, because the Gonds will not touch it, so 'that it is grown only where Korkūs are numerous.'

Roadside arboriculture.

165. Arboricultural operations are carried on by the Public Works Department on eight roads with an aggregate length of 182 miles, out of which 153 miles, running through open country, require to be provided with avenues. At present avenues, either established or under maintenance, exist on only about 20 miles of the length requiring them, the Itārsi road having ten miles and the Betūl-Multai road three. The Department maintains twelve nurseries on the different roads, and the annual expenditure is at present about Rs. 1200. The District Council are engaged in planting the old road from Badnūr to Chhindwāra and the circular

road round Badnūr. It is not clear why the former road, which carries very little traffic, has been selected for plantation, when so much remains to be done on the more important routes. The Council maintain one nursery at Badnūr. Recently groves have been planted by mālguzārs in several villages, and the Multai Local Board has established one at Māsod.

MINERALS.

Coal-measures.

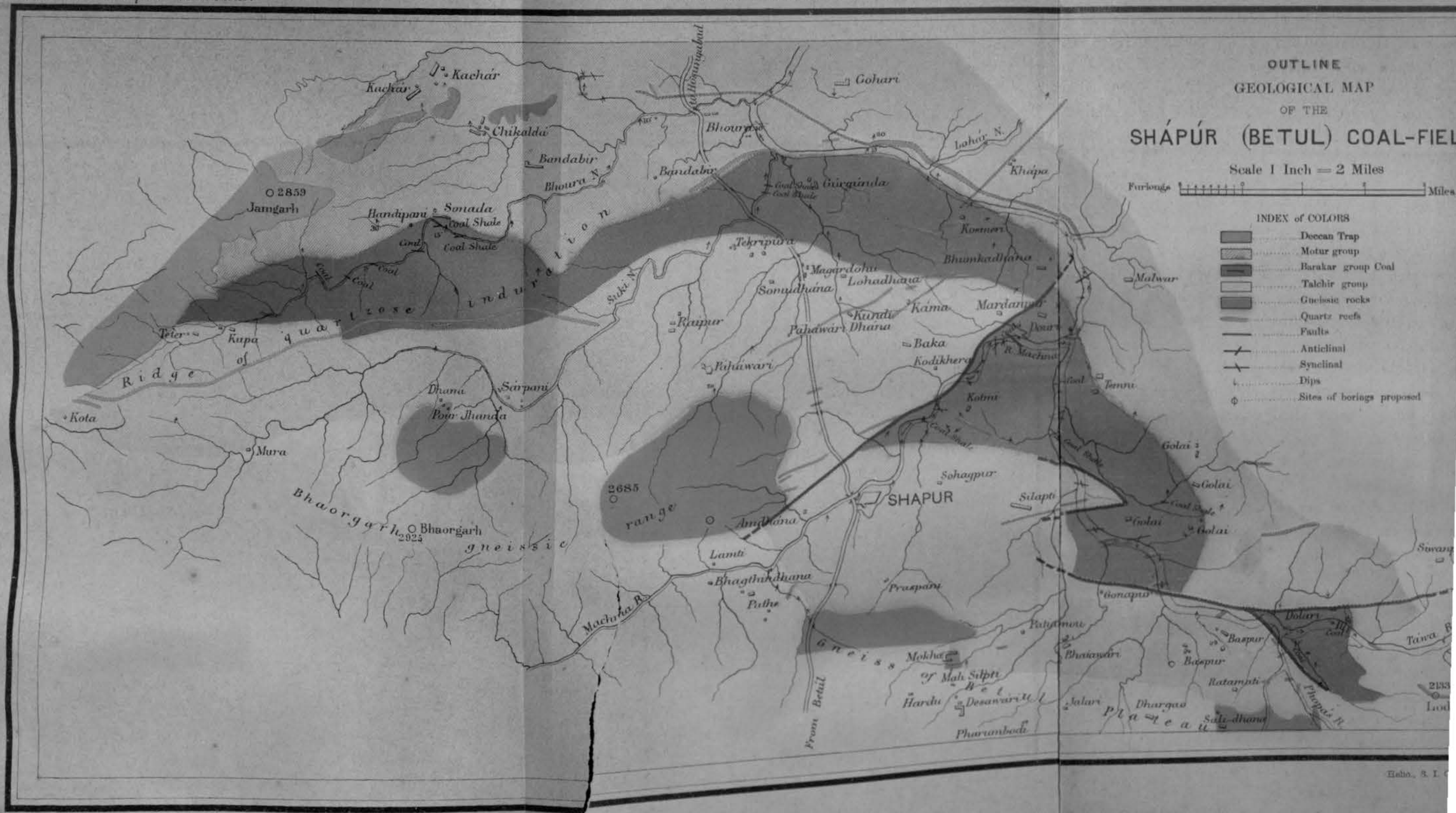
165. As stated in the notice of Geology, the Barākar coal-bearing group of the Dāmuda series of Gondwāna rocks runs in a narrow line across the north of the District, following roughly the courses of the Tawā and Bhaurā streams. Outcrops of coal occur in various places, and were thus described by Mr. Medlicott [1] :—

'In the Tawā under Dolarī village east of the junction 'with the Phophas there is the fullest section of charac-'teristically Barākar rocks within this whole District. The 'coal is only seen just under the sandstone, the rest of the 'outcrop being covered up; but there is room for a large 'seam. From beneath it, there rises a strong bed of white 'felspathic sandstone. Immediately under this, again coal is 'seen for a small thickness, the rest of the outcrop, full 'twenty yards wide, being concealed. Below this for 130 'yards there is white sandstone; then again coal. The 'covered outcrop of this seam is 40 yards wide, in which 'some layers of dark shale can be traced under water, but 'there is room for much coal in the unseen portions. There 'is then 50 yards of sandstone and below it 20 yards of 'covered outcrop with coal at top. This fourth seam is also 'underlaid by strong white sandstone. These 350 yards of 'section, with an average easterly dip of 12°, represent 'about 200 feet of strata, containing what may be four strong 'seams of coal. I saw nothing to suggest that any of the

[1] Records of the Geological Survey of India, Vol. VIII, Pt. 3. 'The Shāhpur coal-field.' The map given here is reproduced from this article.

'outcrops are due to repetition by faulting.' The next outcrop of importance is in the bed of the Māchna river near Mardānpur, a few miles north-west of Shāhpur, which is described as follows:—

'It was from outcrops in the Māchna itself under Mardān- 'pur that the large quantity of coal was taken which gave 'such satisfactory results in a trial on the Great Indian 'Peninsula Railway in 1873. From the confluence of the 'Māchna and Tawā a great sheet of strong Barākar sand- 'stone rises gently to westwards along the bed of the former 'stream. Under Daurī a long deep pool has been cut by the 'water through this rock into an underlying earthy bed, 'which is quite concealed; the same mass of sandstone con- 'tinuing above the pool and extending on the left bank up to 'where the river bends to the west-south-west. For a hundred 'yards or so near the bend the sandstones on the right bank 'have a considerable north-westerly dip, and in the bed of the 'river is visible the crack along which, by faulting, this abut- 'ting stratification takes place. There must also be a south- 'westerly or some equivalent line of fracture at the back of 'this upheaved mass of beds. It is at the top of this little 'section that the coal seams occur, cutting very obliquely 'across the river bed. At every available point of the outcrop, 'along a length of some sixty yards, coal was cut on both 'sides of the river. The holes are now filled in and little can 'be seen. There are two seams, the lower one apparently 'with a strong parting of shale. There did not seem to be in 'either seam room for more than four to five feet of coal. The 'dip is 30°. At a short distance up-stream the dip changes 'to north-east and continues so up to the next, north-south, 'reach. I could not find that the seams are repeated on the 'reverse outcrop. There is thus here an oblique synclinal 'flexure, sloping towards the main fault, and the continuity 'of the coal at this spot is therefore closely limited. The 'place seems, on the whole, very unpropitious for mining 'operations.'



Prepared specially for the Superintendent Gazetteer Revision, C.P.
from an Original supplied by him.

In the Sūki stream about a mile north of the point where it crosses the Itārsi road, there are three inches of platy coal at the top of an irregular earthy parting in a band of massive white Barākar sandstone. This site offers little promise of workable coal. Another outcrop occurs in the Bhaurā stream a little south-east of Jāmgarh, and above the villages of Sonāda and Hāndīpāni. This is described as follows:—
'The Barākar beds are fairly exposed for several miles along 'the Bhaurā stream, the course of which is very oblique to 'the strike of the formations. For this reason and the doubt-'ful accuracy of the map, it is impossible to be certain whether 'two or more of the outcrops may not belong to the same seam 'or to assign an approximate thickness for this group. It is 'certain however that the coal-measures are more pronounced 'than on the Sūki. The top rock is as usual a very strong 'white sandstone. Under Sonāda, near the top of the long 'west-by-north reach of the river, two poor strings of coal occur 'in local partings of this rock. Above Sonāda there is a 'succession of south-westerly reaches across the measures, 'and west-north-westerly reaches more or less along the 'strike. At the northerly elbows between the four first pairs 'of these reaches coal is seen on the left bank under strong 'sandstone. The first two are, I think, the same seam and 'also the third and fourth at a lower horizon. From one to 'two feet of coal are seen in each case; but there is room for 'more in the concealed part of the outcrop. There are besides 'several bands of covered ground in these sections that may 'contain coal. To the west the whole group passes into the 'base of the Jāmgarh range, and is obliquely overlapped by the 'covering trap which passes across it to rest on the Tālchers 'west of Teter. The first scarp north of Teter is of coarse 'Barākar sandstone, locally altered by the overlying basalt.' Generally it may be said that except on the Tawā, where some of the coal is of excellent quality, and one or two seams are four feet thick, not one seam is known to occur exceeding three feet in thickness. And it is very doubtful whether

such small seams can at present be profitably worked in India. Subsequently to the inspection by Mr. Medlicott, the results of which are given above, three borings were made in the Shāhpur field, two of them to a depth of 400 feet and the third to 539 feet. They all passed through several coaly seams with some thin bands of coal; but none were of sufficient promise to recommend the sinking of a trial shaft. It is believed that all the coal-bearing measures were passed through in each boring, but the seams are even poorer than at their outcrops. The field thus offers little or no promise of profitable working [1].

Other minerals.

167. Limestone quarries are worked at a number of places both in the Betūl and Multai tahsīls. The lime is smelted and disposed of locally. Quarries of soft stone exist at Sālbardī on the southern border, at Kanāra near Kherī Saolīgarh and at Ratāmāti. Stone slabs, mortars and cups are made and sold locally. Stone obtained from a quarry near Amarmai in Government forest is exported to Berār. Copper ores have been found in the vicinity of the Tāpti, and mica in the Rānipur forests and near Sonāghāti. There is some ground for supposing that lead ores may exist at Sonegaon near Bordehi. The onyx beads called Sulaimān's beads have been picked up at Pattan and in one or two other localities.

[1] Jones; The Southern Coalfields of the Sātpurā Gondwāna basin. Memoirs of the Geological Survey, Vol. XXIV, Part I.

CHAPTER VII.

FAMINE.

Early famines. Absence of records.

168. As in other Districts little or no information is available as to the occurrence of famine in Betūl except in recent years. In 1819 the spring crops failed and the price of wheat in that year rose to double the prevailing rate. In 1832-33, excessive followed by deficient rain destroyed the harvests in the Nerbudda valley and on the Sātpurā plateau. Prices rose largely and heavy mortality occurred in Betūl. The District is said also to have suffered from scarcity in 1845 and 1854, but no details have been preserved. In 1868-69, the year of the Bundelkhand famine, the rainfall of Betūl was only 21 inches. In August only 4 inches were received, but a storm lasting for three days in September partially revived the withering autumn crops and moistened the soil for the spring sowings. The total rain in this month was 4½ inches. A moderate autumn and a fair spring harvest were obtained and the cultivators were reported to have profited from the high prices realised for agricultural produce. No necessity was considered to have arisen for Government relief other than the grant of loans for the construction of wells, for which purpose Rs. 11,000 were distributed. The forest tribes were sustained by the mahuā harvest. The price of wheat and gram rose from 16 to 10 seers per rupee. In 1878 the spring crops suffered from heavy rain and frost in the cold weather months and the wheat harvest was estimated at only three to four annas. Prices rose and some distress was felt among the poorer classes. The forests were thrown open for the free collection of mahuā and other produce, and as one or two roads were under construction in the District nothing more was considered to be required.

In the following year, 1878-79, the monsoon was very heavy up to the end of September, in which month 9½ inches were received. The ensuing cold weather was almost rainless, and while the juār had been injured by too much moisture, the spring crops were defective owing to drought. The returns of vital statistics for these two years show that distress was felt. The next bad year was in 1886, when the rain crops were damaged by the failing of the monsoon in August and September, and in some tracts the harvest was reduced to an eighth or a quarter of normal. The first spring sowings were lost, but heavy rain in October enabled fresh seed to be put in and in the result an average wheat crop was obtained, though the outturns of linseed and gram were short. Preparations had been made for opening some work on roads, but the comparatively good spring harvest was considered to remove any necessity for these. The mortality statistics were, however, affected to some degree by the bad circumstances of the year, showing that distress was not entirely unfelt.

The bad years after 1891.

169. From 1891 the District struggled against a series of adverse seasons. In that year nearly 23 inches of rain fell in September and only insignificant showers subsequently. The autumn crops were water-logged and the spring sowings withered from drought, about half a normal harvest being obtained from each. In the next year a fair autumn harvest was reaped, but heavy rain and cloudy weather between January and March greatly injured the wheat, gram and linseed, reducing the outturn by a half or more. In the next year, 1893-94, the area under crop decreased by 50,000 acres, and though the rainfall was not apparently unfavourable, the harvests were poor, with the exception of wheat, of which a bumper crop was obtained. This did not, however, benefit the large numbers of Gonds and Korkūs to an extent sufficient to compensate for the partial loss of the kodon and kutkī, and the death-rate rose to 47 per mille in 1894 from 27

in the preceding year. In 1894-95 the District fared well as compared with others, the combined outturn of all crops being 85 per cent of an average harvest, but the death-rate remained as high as 46 per mille, the mortality in both these years being aggravated by epidemics of cholera. The agricultural statistics would appear to demonstrate that the distress must have been confined to the forest tracts, where the kodon and kutkī had been poor for four years in succession. With this exception the harvests were sufficiently favourable to have prevented any severe distress, at any rate for the greater part of 1894 and 1895. And the serious effects wrought by the partial failure of these comparatively unimportant millets are worthy of notice. In 1895-96 the monsoon practically died away at the end of August, but a fall of nearly 3 inches in September averted the complete failure of the autumn harvest, which was something more than half an average. The area sown with spring crops was restricted by the dryness of the ground and the outturn reduced to a similar proportion by the absence of rain in the cold weather. No severe distress would, however, appear to have resulted as the death-rate was lower than in the preceding year.

The famine of 1897.

170. In 1896-97 the close of the monsoon at the end of August was repeated and the autumn harvest was still worse. The area of the spring crops was much restricted, but favourable rain in the winter months enabled a fair harvest to be gathered from such fields as had been sown. The combined outturn was 42 per cent of a normal harvest as against 56 in the preceding year. Cotton was fairly successful in both years and til also to a less degree, but these crops were then of comparatively small importance. The combined effect of the two bad years followed by several poor harvests produced a condition of famine, severe from the first in the forest tracts and intensifying in the open country through the hot weather and monsoon months of 1897. The extent of the distress was not fully realised at first and more especially its

prevalence among the Gonds and Korkūs, who had no idea of resorting to road works, and continued to eke out a bare subsistence on forest produce until their enfeebled frames succumbed easily to cholera, dysentery and diarrhœa in the rains. Test works were considered to be at first sufficient according to the general famine policy of this period, and they failed to attract the people or to disclose the prevalence of distress. Relief works were opened in December and January 1897, fresh construction being undertaken on the roads from Betūl to Ellichpur, Chicholī to Hardā and Multai to Chhindwāra. Famine loans to the extent of Rs. 18,000 were advanced to village proprietors for the excavation of wells and the embankment of fields and the excavation of a tank at Ratāmāti was undertaken as a Government village work. Three poor-houses were opened at first by private subscription and relief was given to indigent persons of the better class in their houses. Village relief was begun in February 1897, its distribution being entrusted to 8 Revenue Inspectors and 4 Forest rangers, but the numbers assisted remained very small until September 1897. Funds were given to the police for the relief of starving wanderers and in August 1897 kitchens were opened at police Station-houses and outposts, the total number being 22. The attendance at kitchens never reached 2000, and was generally confined to castes of inferior social standing. Those who took food in kitchens were required to perform purificatory ceremonies before being readmitted to caste. Shaving of moustaches or drinking water into which the toe of a Brāhman had been dipped were sometimes prescribed as penalties. The well-to-do were required to feast the caste fellows, but the *gurus* or spiritual preceptors made inquiry into the circumstances of the delinquents and exempted those who had no money, thus tempering the wind to the shorn lamb. Generally these subsidiary forms of relief were begun too late and administered on too small a scale. The total number of persons relieved reached 18,000 in March 1897, and fell off during

April, rising again to 21,000 in May and June and 26,000 at the end of September 1897. This last figure was equivalent to 8 per cent of the population. The direct expenditure was 4½ lakhs, and about Rs. 90,000 were distributed in charitable grants or agricultural loans for the purchase of seed-grain and bullocks. The land revenue was not suspended except in a few selected villages. The mortality for the year 1897 was 74 per mille as against 38 in 1896. The death-rate remained favourably small until June 1897, but from this month it was very high until October, and the real destitution of the people became terribly apparent, being intensified by the long break in the rains during June and July 1897. Prices were at famine rates during most of 1897, the highest price of juār being 13 lbs. to the rupee in June, while wheat and rice were 12 and 11 lbs. respectively in the same month. Grain was imported from Itārsi by road and great difficulty was experienced in obtaining transport owing to the enfeebled condition of the cattle.

Serious consequences of the famine.

171. The results of the famine were more serious in Betūl than in any District of the Nerbudda Division. The cropped area declined in 1897-98 by 50,000 acres on the figure of 1896-97, and by 173,000 acres or 25 per cent on the maximum area of 701,000 acres recorded in 1892-93. This result was attributed to the dearth of plough-cattle and the inability of the cultivators to replace those lost in 1897. In the forest tracts, Mr. Standen wrote, about a sixth of the Cultivators habitually get bullocks on hire to till their land. And as many of the cattle had been sold it was impossible to obtain a sufficient number for field work. Many of the Gond cultivators to whom grants had been made for the purchase of cattle spent the money on food or possibly on drink. The autumn harvest of 1897 was excellent, but owing to the absence of the winter rains the spring crops were short. A little village relief was given in the forest villages during the

period of slack employment in July and August 1898, the highest number of persons assisted being 1800. In 1898 the rainfall was again abundant up to September and then ceased, the period from October to January being almost rainless. Juār and til were somewhat damaged by the heavy rain of July and August, while the outturn of the spring crops was again short owing to drought in the cold weather and the combined harvest was 73 per cent of the average.

The famine of 1900.

172. In 1899-1900 the rains failed completely, only 3 inches being received at Badnūr in June, $5\frac{1}{2}$ in July, and under 2 inches in August, while after this only one or two insignificant showers were registered during the remainder of the agricultural year. Even under such unfavourable conditions cotton, til and gram gave about half an average outturn and wheat 40 per cent, but from the other crops little or nothing was obtained. The area sown with the spring crops was very short and the proportion of the harvest to a normal outturn on a normal area was only 18 per cent, this being insufficient to pay for the seed and the direct outlay on cultivation. The almost total destruction of the mahuā crop was an additional and unlooked-for calamity. A severe famine was the necessary sequel to such a season and a complete and timely organisation of relief measures of all kinds was brought into effect as soon as the necessity for it was demonstrated. Small works under the charge of civil officers were opened in the first fortnight of September and at the same time the distribution of gratuitous relief was begun. Twelve large camps under the Public Works Department were established between October and January, and this number proved sufficient to meet the demand for labour. The works undertaken consisted in the collection of metal and gravel on the north-west road and on the roads from Multai to Pattan and the Chhindwāra border, the construction of new roads from Badnūr to Atner, Maltai to Māsod, and

Nīmpāni to Chicholī and the improvement of the Ellichpur road. A large tank was dug at Malājpur and a telegraph line erected from Badnūr to Multai. The highest number of persons employed on large works was 54,000 or 17 per cent of the population in February 1900. As the camps under the Public Works Department were opened the small works initiated by civil officers were gradually shut down, but valuable results had been accomplished in the repair of 12 old tanks, the commencement or completion of 18 new ones and the construction or improvement of nearly 250 wells.

173. Another branch of the relief organisation, however, consisting in the provision of special and congenial employment for the forest tribes continued concurrently with the large works. This mainly took the form of grass-cutting operations, though when no more grass in the vicinity was available village tanks were made and forest works improved, or occupied land was cleared of stumps and stones. The largest number of work-centres open at one time was 30, and in December 1899 a maximum of 28,000 labourers were employed. As the Public Works Department camps provided labour in the vicinity and all the grass available was cut, some of the depôts were closed, but others were again opened in different tracts and in August 1900, the number of persons employed was 21,000. The cutting of grass by famine labour was carried out in Betūl on a much more extensive scale than in any other District, but the circumstances here were not such as to render the operations a financial success, as no severe fodder famine was experienced, and the people are not accustomed to incur expenditure on fodder for cattle, while the distance from the railway was such as to make the expense of transport prohibitive. Altogether 30,000 tons of grass were cut, and of this only about 8000 tons were sold and 1200 tons otherwise disposed of, the return being only about a tenth of the expenditure incurred. But the main object of providing employment for the forest tribes,

Works for the forest tribes.

who had suffered so greatly in the previous famine, was most successfully attained.

Subsidiary measures of relief.

174. Village relief was adopted as the most suitable means of assisting the infirm and indigent at the commencement of the famine. The distribution lists contained 32,000 names in November, after which this form of relief was largely curtailed until the commencement of the rains, the numbers being reduced to 7000 in March 1900, from which they rose again to 10,000 in September. Kitchens for the distribution of cooked food were also adopted as a means of relief at the very commencement of the famine, and in January 85 had been opened. During the cold and hot weather the bulk of the infirm paupers to whom village relief had at first been given were transferred to the kitchen lists. After the breaking of the monsoon the attendance at kitchens was swollen by large numbers of adults for whom work could no longer be provided, and in July 84,000 persons or more than a quarter of the whole population were being fed in 190 kitchens. On this occasion the bulk of the people soon waived their social scruples against the acceptance of cooked food. The majority of the kitchens were under the charge of a committee consisting of the headman and the most respectable residents of the village in which they were located, a clerk being appointed to keep the accounts.

Leading statistics.

175. The provision of famine relief lasted from September 1899 to December 1900. The numbers in receipt of assistance rose from 31,000 at the end of September 1899 to 108,000 at the end of December, after which they fell off slightly until the break of the rains, and rose again to 143,000 or 45 per cent of the population in August 1900. The direct expenditure was Rs. 34 lakhs, the number of day-units relieved 38 millions, and the incidence per day-unit R. 0-1-5. Nearly the whole of the demand for land revenue was suspended and subsequently remitted. More than a lakh of rupees were

advanced under the Agriculturists' Loans Act for the purchase of seed-grain and bullocks, and a lakh and a half were distributed in grants from the Indian Charitable Relief Fund for the same purpose.

Mortality and prices.

176. The mortality remained unaffected by famine conditions until January 1900 when it began to rise slowly. The monthly rate was about 5 per mille in March and April from which it rose to 12 per mille in June, 13½ in July and 11 in August, after which it rapidly declined. The sketch of the extensive and elaborate organisation of famine relief which has just been given demonstrates sufficiently that no part of the high death-rate can be ascribed to privation, and renders it most difficult to explain. It must be attributed to the scarcity of water consequent on the very short rainfall and the resulting pollution of the sources of supply. A severe epidemic of cholera occurred and bad water was probably responsible for a large amount of other disease. The necessary emigration of the people from their homes for concentration on large works must no doubt have been a hardship, and may have contributed in some degree to depress the general standard of health, but this was unavoidable. The birth-rate of 1899 had been high and the infant mortality was severe, the deaths of children under 5 years of age accounting for 49 per cent of the total. The average price of wheat during the year 1900 was 17 lbs. per rupee and that of gram 18 lbs. Wheat was thus scarcely cheaper than in 1897, while gram was two pounds cheaper. Juār and kodon were unobtainable for a great part of the year. The price of the latter grain was returned as 24 lbs.

General remarks on famine.

177. From the year 1900 up to 1905 no famine relief was necessary in Betūl, though the harvest of 1901-02 was very poor and a considerable proportion of the revenue was remitted. The District was severely affected by the famine of 1897, and the cropped area in 1904-05 was still 48,000 acres below the

maximum area of 701,000 acres recorded in 1892-93. The protection of the large numbers of primitive Gonds and Korkūs must always form a serious problem, but it is probable that the famine of 1900 has rendered them much more ready to accept Government assistance, and the prospective construction of a railway through the District should tend to accelerate the process of civilisation, while it will remove the difficulty of the transport of grain which intensified the famines both of 1897 and 1900.

CHAPTER VIII.

LAND REVENUE ADMINISTRATION.

178. Under the old Marāthā government each village had its patel or headman who had to collect the rents from the tenants and pay them into the Government treasury. The amount of these collections had been previously fixed by the district revenue officer by an *ijmailī* or estimate based on the collections for the past year and the changes calculated on for the current year. The patel was supposed to receive an eighth of the gross collections for his own share, but, as owing to the uncertainties of seasons and other causes, the collections were precarious, and as all deficiencies had to be made good by him, the patel seldom reaped the full *inām* or profit that he was entitled to, and in fact was often involved in loss. In later times, however, partly with the consent of Government and partly by the connivance of the local authorities, the patels began to appropriate to themselves a field free of rent, which then became the most valuable appanage of their office and represented the *sīr* land now held by the proprietor. In addition to his fiscal duties the patel had certain powers in criminal matters and was more or less arbiter of the village destinies at a time when law was weak and might was right as far as the poor man was concerned. Mr. Ramsay, from whose Report on the 30 years' settlement the above remarks are taken, continues :—'It has been said that the office of 'patel was not hereditary, but in point of fact it did descend 'from father to son so long as the duties of the office were 'duly performed and the revenue demanded was regularly 'paid. But during the system of over-exaction which com-'menced after the peace of Deogaon, the majority of the '"Watandār Patels" as they prided themselves on being

Revenue administration under the Marāthās.

'termed had to make way for a race of speculating farmers, 'who agreed to any conditions the revenue authorities might 'make in the hopes of securing a footing in the village for 'better times to come.' So far as can be gathered from past records the total assessment of the District previous to the peace of Deogaon in 1803 was about 1·65 lakhs. At that time Betūl is represented as having been in a tolerably flourishing condition, the people well off and the revenue realised without difficulty. But after the dismemberment of the Marāthā empire consequent on the fall of Gāwīlgarh and other victories of our armies, the government of Nāgpur commenced an indiscriminate system of rack-renting and extortion throughout the dominion that was left to it by way of indemnifying itself for its loss of territory. The Betūl District fared like the rest of the Nāgpur kingdom and we find the average assessment of the thirteen years following 1803 to have reached the sum of Rs. 2·47 lakhs, an increase of no less than Rs. 80,000; add to this that besides the effects of misgovernment and oppression on the part of the administration, the District during that period was subjected to unceasing raids on the part of Pindāris, Gonds and other wanderers who sacked whole villages and laid waste the lands, and it may well be imagined that the collections amounted to but a small portion of the nominal revenue and had frequently to be levied by actual force.

First British settlements.

179. When the District first came under British administration these considerations were lost sight of and it was thought that the introduction of a settled government should lead to a speedy influx of capital and labour and an increase in the value of land. Our officers expected that the territories handed over to them should pay regularly an assessment equal to the highest nominal demand in the worst period of Marāthā rack-renting, more especially as a number of miscellaneous imposts known as *pattīs* and *bargans* were abolished. These expectations were entirely falsified, however, as the District

was too far removed from important markets to permit of any influx of external capital, while the restoration of tranquillity had the effect of producing an enormous decline in the prices of agricultural produce. Wheat had been 32 seers to the rupee during the period from 1803 to 1816. It rose to 16 seers on account of the bad harvest of 1819, but then rapidly declined to 43 seers between 1821 and 1824, 64 seers in 1825, and 96 seers in 1826. The first British settlement was made for a term of 5 years in 1818. The demand was fixed at Rs. 2·87 lakhs or a sum higher than that paid under the settlement now in force. It was a complete failure and large remissions had to be given every year, so that the average annual collections during the period did not amount to more than Rs. 2·56 lakhs. The next assessment was made in 1823 for three years by Captain Low, the officer whose reports were the authority for the past fiscal history of the District up to the time of the 30 years' settlement. The revenue was reduced to Rs. 2·03 lakhs or by nearly a lakh of rupees on the nominal amount of the previous settlement, but even so considerable remissions had to be granted. Captain Low wrote, however, that these were mainly necessitated by the poor crops of 1824-25 and that the people were fully satisfied with the settlement.

Results of over-assessment.

180. It was followed in 1826 by another quinquennial settlement made by Captain Low in which the demand was further slightly reduced to Rs. 2 lakhs. At this period, however, the price of wheat fell to the figure of 96 seers per rupee already mentioned. Even the moderate assessment could not be paid and large remissions had to be given every year, the average collections for the period being Rs. 1·85 lakhs. All the reports of that period, says Mr. Ramsay, speak of the general poverty both of patels and cultivators, the straits to which they were reduced to meet the demands upon them and the consequent state of debt into which all alike had fallen. This state of things was generally attributed to the excessive

demand at the first settlement, from the effect of which the people had been unable as yet to recover, and also to the general deterioration of the soil from long-continued cultivation without a fallow. This latter theory had some credence at the time as Mr. Ramsay says that the assessments were influenced by the supposed necessity for allowing mālguzārs purposely to throw land out of cultivation for the benefit of a fallow. He himself, however, did not believe that the land was continually deteriorating, though it was no doubt the case that after some years of cropping the return was considerably less than that obtained from new soil. Captain Low appears to have assumed, says Mr. Ramsay, that a settlement in the Betūl District must always be of an annual and fluctuating nature and that it would be impossible to frame any assessment, however low, that would hold good for a term of years without modification. Thus the assessment came to be looked upon merely as a maximum standard which might, under the most favourable circumstances, be realised, but which in point of fact never was. The stability of the last quinquennial settlement was sorely put to the test by three successive seasons of failures of crops terminating in 1830, the last year of the settlement; so bad was the state of affairs at that time that no less than Rs. 92,000 accumulated in arrears of revenue had to be written off as irrecoverable. The rate of assessment on soils was apparently very high, amounting to R. 1-4-0 an acre on *morand* land which is considerably more than the existing rent-rate, while prices are now about 600 per cent higher than at this period.

Reductions of the demand.

181. A new settlement was made in 1831 by Mr. Smith for a period of three years, the demand being fixed at Rs. 1·61 lakhs or a reduction of Rs. 39,000. At this time a number of cultivators had left the District especially from the Atner pargana, many going to Berār which appears to have been in a much better state than Betūl at that period. Numbers of the mālguzārs had thrown up their villages and there was a difficulty in

finding anyone to take their place. It was intended to leave the mālguzārs 25 per cent on the gross collections. Mr. Ramsay says :— 'I find that Captain Low assumed that the 'Government revenue ought to amount to the value of two 'fifths of the gross produce, while Lieutenant Smith calculated 'that it should equal half the gross produce after deducting 'the *bonâ fide* expenses of cultivation; either of these estimates 'would now be considered excessive.' The settlement was, however, successful. New men came forward to take up the villages which had been thrown up by the former mālguzārs Abandoned lands were given on three years leases free of rent to encourage cultivation, and confidence was once more restored throughout the District. The first settlement in 1818 had been based solely upon the supposed average collections of the previous few years. That of Captain Low in 1823 was founded chiefly on the *lāgwans* or village rent-rolls modified by the Settlement Officer's own inquiries. At Captain Low's second settlement he availed himself of a rough survey made under his orders by the patwāris subjected to no regular test and embracing only land under cultivation. Such as it was, it was made the foundation of a system of rates and produce estimates, but Captain Low described his method with engaging frankness in the following words :—

'It is a mistake, however, to suppose that any of the 'last settlements made by me in Betūl were founded upon the 'elaborate calculations that they appear to be. The fact 'was that I assessed each village according to its individual 'state and circumstances, the only way a settlement in this 'country can be made, and the division of the villages into 'classes was done afterwards to save the trouble of replying 'to the numerous inquiries that I expected to have addressed 'to me, as they were on the occasion of the preceding settle-'ment'; and again :—'This is what gave rise to putting the 'villages into classes, that all those in which the average rates 'on the land nearly corresponded might be put together and

one explanation serve for all in the settlement books. But 'the classification was entirely nominal, and instead of being 'altered to fit the class, the village went into whatever class 'the *jamā* fixed might happen to bring it.'

The 20 years' settlement.

182. When the triennial assessment expired in 1834 it had been decided to grant a 20 years' settlement on liberal terms throughout the Saugor and Nerbudda territories. The settlement in Betūl was carried out by Major Ousely, the principle on which it was founded being apparently that of a regular reduction by a percentage on the revenue of all villages indiscriminately. The previous settlement had worked well and the pressure of the Government demand had been found light, but in fixing an assessment for so long a period as twenty years, it was felt that a large margin must be left for the accidents of seasons and other contingencies, so as to ensure the regular collection of the amount assessed. The amount of the new assessment was about Rs. 1·40 lakhs, being a reduction of over Rs. 21,000 or more than 12 per cent upon the preceding light settlement. Though made for twenty years only the settlement as a matter of fact continued in force for thirty or until 1864, in consequence of the Mutiny. The District prospered during this period, each succeeding year witnessing an addition to the wealth and general resources of the community. Throughout the open parts of the District the whole of the culturable land was brought under the plough and even in the wilder parts great inroads were made upon the domain of the forests. At the same time the prices of grain rose gradually until in 1860 wheat was 32 seers a rupee as against 96 in 1826, while in 1863 it rose temporarily to 13 seers. At the expiration of the settlement the demand fell apparently at only $3\frac{1}{2}$ annas per acre in cultivation.

The 30 years' settlement. Defects in the survey.

183 The 30 years' settlement concluded by Mr. Ramsay in 1864 was based on a survey with more pretentions to accuracy than any

which had previously been made in the District. The measurements were commenced in 1855 under a Deputy Collector and being interrupted for three years by the Mutiny were finally completed in 1862. On coming to the District Mr. Ramsay found that the changes which had occurred since survey necessitated a general check of the records, but even so they were considered when the final report was submitted to be faulty beyond the average for these settlements. Mr. Ramsay himself had not much confidence in the accuracy of the records as he remarked:—'The area of reserved waste so 'demarcated was computed from the entries of the numbers in 'the *khasrā*; but in many cases the measurements are so 'faulty and frequently the figures in the *khasrā* bear so little 'affinity to the numbers as traced upon the map, that little 'reliance can be placed upon the figures; and the real areas 'will not be ascertained until the District is professionally 'surveyed.'

Method and results of the settlement.

184. The basis of the settlement was an estimate of the annual income that the mālguzār should be able to raise from the village, and it was made by applying fixed rent-rates to each class of soil. The District was divided into fourteen groups, each of which was further subdivided into three classes with different soil-rates. All the poor villages inhabited by Gonds and Korkūs were thrown into the third class and no soil-rates were applied to these. The Settlement Officer wrote:—'In framing the rates I have been 'in some degree guided by those existing in neighbour-'ing Districts as far as I have been able to ascertain them, 'and also from what I have ascertained to be about the value 'of the different sorts of land from local personal inquiry as 'well as from reference to the old reports on the subject and 'leases given by *muāfidārs* and others.' The rates for irrigated land were between Rs. 2 and Rs. 3 an acre; for *kāli* R. 1-2-0 to Rs. 2; for *morand* from 14 annas to R. 1-8-0; for *khardī* 8 and 12 annas; for *retāri* 6 and 8 annas, and for

bardī 4 annas. The average incidence of the revenue per cultivated acre was, however, only a little more than 4 annas according to Mr. Fuller's calculation. A considerable increase was anticipated from the adequate assessment of irrigated land, which had hitherto been treated very much like other land. The revenue was raised to Rs. 1·85 lakhs or by Rs. 45,000, being equivalent to an increase of 32 per cent on the previous demand and falling at 64 per cent of the corrected assets after rental revision. *Siwai* or miscellaneous income was apparently not assessed. Government rights were reserved in 1079 square miles of waste land or 28 per cent of the area of the District. The Settlement Officer thought that a general and considerable increase in rents might be looked for, but the results of rental adjustment were not substantial, the increase in the rent-roll being only from Rs. 2·72 to Rs. 2·87 lakhs or by 5½ per cent, the rate per acre in cultivation rising from R. 0-6-9 to R. 0-7-1. As regards the rents the Settlement Officer wrote:—'As a fact 'for the last 25 years the cultivators have been used to ex-'ceedingly light rents which they have come to regard as 'stereotyped, and therefore the raising of the rents will be a 'gradual process according as the circumstances of the people 'permit. Many proprietors assured me that they had been 'receiving quite nominal rents for years past, but which they 'deemed themselves unable to rectify under the existing state 'of the law as they understood it.' How this feeling arose is explained in the following discussion of the principles on which proprietary and cultivating rights were granted.

Proprietary and cultivating tenures.

185. As stated at the commencement of this chapter many of the old *watandāri* patels had been ousted during the later period of exaction under Marāthā rule and this process continued during our first settlements. As a matter of fact, however, though the Settlement Officer states that a class of new patels had arisen, his statement showing the length of tenure of those on whom proprietary rights were

conferred indicates that out of 1092 villages, in 566 the patels had held from prior to British rule, and in 309 more from the year 1822. Of 87 villages in which the proprietor was of recent standing 55 belonged to the Shāhpur *tāluka* which was confiscated in 1857 on account of the holder, the Kurmi patel of Betūl having been suspected, though perhaps unjustly, of disaffection during the Mutiny. As regards the tenantry Mr. Ramsay wrote :—'Under the old Marāthā government there is no trace of such a thing as tenant right, or 'prescriptive rights of occupancy existing in this District 'under any terms except in the case of *muāfidārs* and grants 'of land for religious or charitable purposes. I state this on 'the authority of an old report by Major Low who was thoroughly conversant with everything connected with the District. The original Marāthā system, however, included two 'classes of tenants, *mīrāsdārs* or hereditary tenants, whose 'tenure was more or less one of military service and who no 'doubt possessed a certain proprietary right in the soil ; and '*uprīs*, literally strangers, who were tenants-at-will without 'any rights. I can find no traces of these tenures having 'existed in the Betūl District. The details of the assessment 'of rental were left with the patel, who let out the lands and 'made his terms with the tenants each year. Such distinctions as hereditary tenants and tenants-at-will were unknown, but in the case of the more substantial tenants lands 'were held from year to year and from father to son, so long 'as the rent demanded was duly paid, but no rights of holding 'on certain terms independent of the will of the patel seems to 'have accrued from such long continuous possession. Some 'exception is said to have been made in the case of a cultivator 'who sank a well or otherwise laid out money in improving a 'field, and in general he would be allowed to hold on his land 'undisturbed, always provided that he paid the proper rent. 'On the whole the system may be said to have worked 'fairly so long as the Government demand was moderate, 'but when the time of indiscriminate and unlimited exaction

'came, the patel had no option but to rack-rent the tenantry 'to the utmost in his own defence, and this state of things 'continued for the first years of our administration. Under 'the light 20 years' settlement concluded in 1837, the mālgu-'zārs had no necessity to drive hard bargains with their 'tenants, and in fact lands were given at very easy rates and 'these have remained pretty much the same till the present 'settlement. The rule of our courts fixing twelve years as 'the period constituting a title to hereditary occupancy has 'been generally construed as giving permission to hold on the 'same fixed terms as heretofore, irrespective of the increased 'value of produce and consequently of land, and hence has 'arisen a class of men, the great bulk of the cultivators in 'fact, who look upon themselves as privileged persons inde-'pendent of the mālguzārs and entitled to hold their land for 'ever on the previous terms.' In consequence of this feeling rents did not rise to anything like the degree that Mr. Ramsay anticipated and the percentage of the revenue on the actual assets was therefore considerably higher than he intended it to be and also very variable. In some cases, Mr. Standen says,[1] the incidence of revenue on assets even at the end of the term of settlement was so large (notably in the Atner group of the Betūl tahsīl and some of the central villages of the Multai tahsīl) that it is difficult to avoid the conclusion that the mālguzār must have found great difficulty in paying the Government demand.

Currency of the 30 years' settlement.

186. During the currency of the 30 years' settlement, the District prospered greatly. Taking the average of the four normal years 1891-95 preceding the famines, the area in occupation had increased by 33 per cent since 1864 and that cultivated, including current fallows, by 38 per cent. In spite of this large expansion of cultivation the cropped area was only 5 per cent larger than that recorded at the previous settlement. But Mr. Standen gives good reasons

[1] Settlement Report, para. 168.

for doubting the correctness of the crop statistics of the settlement of 1864; the maps and records were notoriously incorrect and it seems that waste land included in holdings was then recorded as cropped to save the trouble of surveying it separately. There had thus been a large expansion of cultivation, but how far this was effective cultivation was obscured by the inaccuracy of the former record. The area held by tenants had increased from 710,000 to nearly 900,000 acres while their payments had risen from Rs. 2·68 to Rs. 3·41 lakhs, the rate per acre having remained stationary at 6 annas. The home farm of the proprietors had risen to 109,000 acres, the increase in the same period being 47,000. The price of wheat rose by 70 per cent in towns, and in the interior the rates of this and other important staples had more than doubled.

The settlement of 1897-99.

187. As in other Districts a completely new survey was undertaken preparatory to the recent settlement, traverse sheets being furnished by the Survey Department and the cadastral survey of the village area being carried out by the District patwāris. The survey lasted from 1888 to 1893 and its cost was Rs. 58 per square mile, the traverse survey costing Rs. 24 and the cadastral Rs. 34 respectively. The 30 years' settlement expired in 1894 all over the District except in 85 villages subsequently transferred from Chhindwāra where the term extended to 1897. The District was placed under settlement in 1894, but operations were not fairly begun till towards the end of that year. The work was delayed by the famine of 1897, and the revised assessments were announced between 1897 and 1899. The settlement[1] was made by Mr. B. P. Standen, C.I.E., whose Report gives a very full and interesting account of the District and has been frequently quoted in these pages. The rental valuation of land was calculated in detail according to

[1] Mr. Blakesley was Settlement Officer from February to October, 1894, but had to resign the appointment owing to ill-health.

the soil-unit system now prescribed in the Central Provinces.

Valuation of soils.

188. The principal soil factors are mentioned in the chapter on Agriculture. As usual a factor of 32 was adopted for *morand* I and a scale of factors for other soils and positions were deduced from this. The standard rate per soil-unit varied from ·50 to ·95 of an anna. This brought out an acreage rate varying from 12 annas to R. 1-14-0 on the principal wheat growing soil in each group, and one varying from 2 annas to 6 annas on the commonest variety of minor crop land. The averages for all groups for the two soils were R. 1-1-0 and 3 annas respectively. The average rent-rate per acre for land held by tenants was R. 1-2-0 for *morand* II *gohāri*, R. 0-3-0 for *bardī* and R. 0-2-4 for *retāri* land. Except in a small area the rates for the principal wheat soil were not substantially higher than those taken at the 30 years' settlement, while on the minor crop land they were lower. But this is no indication of the measure of enhancement of the rental, because at the 30 years' settlement rents were not raised to the rates assumed by Mr. Ramsay. The real pressure of the rental was also considerably increased on account of the inferior quality of the fresh land brought under cultivation during the period of settlement. The sanctioned standard of enhancement over the rental of the 30 years' settlement was 50 per cent.

Enhancement of the rental.

189. The area held by *mālik-makbūzas* was under 7000 acres, and had increased from 5400 acres in 1864 apparently on account of the settlement in this right of lapsed revenue free grants. Their rental was raised to Rs. 5700 or by 53 per cent, including the commission payable to the mālguzārs. The real enhancement was somewhat less owing to the inclusion in the new rental of land held free from the mālguzār, such plots being given to members of the proprietary family in lieu of a share in the village. *Mālik-makbūzas*

have also to pay cesses. The rent-rate per acre was raised from R. 0-8-6 to R. 0-13-2. The high rate of enhancement was justified by the fact that a large area was sublet for sums considerably in excess of the revised rental, and many of the plot-proprietors are well-to-do and have other means of subsistence. Absolute occupancy tenants held 174,000 acres or 17 per cent of the occupied area, the extent of their holdings having decreased since the previous settlement by 27 per cent. Their rental was raised from Rs. 94,000 to Rs. 1·11 lakhs or by 18 per cent, the average rate being R. 0-10-2 as against R. 0-7-8 at the previous settlement. Occupancy tenants held 377,000 acres or 37 per cent of the occupied area as against 119,000 in 1864, the area held in this right having increased by 216 per cent under the operation of the 12 years' rule. In a few cases where tenants had paid premia for a lease securing their right to hold the land on a fixed rent for ever or for the term of settlement, they were recorded as occupancy tenants. Their rental was raised from Rs. 1·23 to Rs. 1·55 lakhs or by 26 per cent, the acreage rate being R. 0-6-6 as against R. 0-7-0 at the 30 years' settlement and R. 0-5-2 before revision. The decline in the acreage rate on that of 1864 was of course due to the large amount of inferior land now held in this right. Much of the increased rental both in this and the absolute-occupancy class was obtained by the assessment of land held at a nominal rent or none at all through the encroachment of the tenant. Ordinary tenants held 348,000 acres or 34 per cent of the occupied area as against 353,000 at the previous settlement, but the land in the occupation of this class of tenants had of course largely changed by the acquisition of occupancy right over a large area recorded in ordinary right in 1864 and on the other hand by the inclusion of newly-cultivated land. Their payments were raised to Rs. 1·31 lakhs from Rs. 1·23 lakhs before revision or by 6 per cent, the acreage rate being R. 0-6-0 as against R. 0-5-7 before revision and R. 0-4-7 in 1864.

Owing to the high existing payments the revised rental exceeded that deduced from soil-factors by 18 per cent.

Results of enhancement.

190. The all-round enhancement of the rental was under 10 per cent in 248 villages, under 20 per cent in 415, under 30 per cent in 285 and over 30 per cent in 111, while in 83 villages the revenue was either reduced or not interfered with. The general increase in the rental was 17 per cent, on that paid before the settlement or 34 per cent on the figure of the 30 years' settlement as against the sanctioned estimate of 50 per cent. The rental was increased from Rs. 3·45 to Rs. 3·98 lakhs including the payments of *mālik-makbūzas*. The rate per acre of the revised payments was R. 0-7-1. It was found at settlement that 25,000 acres of land held in tenant right were sublet at an average rate of R. 1-2-0 per acre. The revised rents were therefore rather less than half the competition rents.

Exemptions and reductions.

191. Grass reserves known as *bīrs* are found in all the open villages where the area available for grazing is small. In some parts of the District grass is a paying crop on poor land, and when it was found that the tenant sold part of the crop and used the rest for fodder or for thatching his house, a part of the *bīr* area was exempted and the remainder assessed. Wells and embankments costing more than Rs. 50 made since the previous settlement were classed as durable improvements under the rules and exempted from assessment. But many wells especially in the Multai tahsīl are made at a smaller original cost than Rs. 50, their sides being shored up with timber or stones and renewed every few years, so that in course of time the expenditure mounts up well above Rs. 50. These were therefore exempted if they were of such importance as to irrigate no less than 1½ acres of sugarcane land. Altogether 1650 wells constructed during the period of settlement at a cost

of Rs. 1·89 lakhs and 45 embankments costing Rs. 6000 were exempted from assessment, the area improved being 7400 acres and the amount of rental abated Rs. 8600. During the term of settlement the rental so abated would have amounted to 63 per cent of the cost of the improvements. A small area of land was held on grain-rents, the contract usually being that known as *batai*, by which the tenant gave half the produce, the seed being first deducted. As a rule the owner of the field supplies the seed and plough-bullocks. These contracts were usually converted into cash rents. In many cases a *pailī* or two of maize is taken by the mālguzār as the rent of maize gardens. These small payments were of no value and no applications were made for their commutation. In certain villages high rents were paid for land which had previously grown opium, and the loss resulting from the prohibition of this crop was made the ground of a petition to the Chief Commissioner. On inquiry it was found that the hardship had been greatly exaggerated, as most of the fields on which opium rents were still paid were situated in the *geunrā* area and produced valuable crops of vegetables. As a rule rents were not reduced in such cases unless they exceeded Rs. 5 an acre or the land was of inferior quality. Excessive rents had been imposed on ordinary tenants in some villages and these were usually reduced with the consent of the mālguzārs, the Settlement Officer not having at this time been empowered under the law to fix the rates of ordinary tenants.

Valuation of proprietor's home farm and miscellaneous income.

192. The home farm of the proprietors covered an area of 109,000 acres of which 73,000 acres were held as *sīr*. The area had increased by 47,000 acres since the previous settlement or by slightly more than the average amount owing to the surrender of lands in the first famines. This area was valued almost without exception at the unit-rates taken for tenants' land so that the lenient treatment of tenants was extended to mālguzārs. The acreage rate was

R. 0-10-8 which was equal to that fixed for absolute occupancy tenants; but was 3 annas an acre in excess of the all-round tenant rate owing to the superiority of the soil of the home farms. The rate may be compared with that of R. 1-9-1 obtained by proprietors upon 9000 acres of land leased out by them. The estimate of *siwai* income was most moderately made after local inquiry in each village, a draw-back being given on account of the fluctuating nature of the income. The amount arrived at was Rs. 32,000 as against Rs. 13,000 stated to have been estimated at the former settlement. The principal items included were mahuā Rs. 5500, *harrā* Rs. 9500 and timber Rs. 9000.

Comparison of assets.

193. The figures of assets at the recent settlement are compared below with those of the 30 years' settlement:—

Source of income.	At settlement in 1864.	As revised.	Percentage increase(+) or decrease (—).
	Rs.	Rs.	
Payments by tenants...	2,68,000[1]	3,97,000[1]	+49
Valuation of home farm and land held by privileged tenants ...	27,000	74,000	+170
Siwai	13,000	32,000	+151
Total ...	3,08,000	5,03,000	+63

Of the increase of Rs. 1·29 lakhs in the rental, Rs. 72,000 were added by the mālguzārs during the currency of the settlement and Rs. 57,000 more on revision.

Enhancements of the revenue.

194. The land revenue was raised from Rs. 1·91 to Rs. 2·77 lakhs or by 45 per cent. It absorbed 54 per cent of the revised assets, 56 per cent being taken in the Multai tahsil and only 53 per cent in the Betūl tahsil, owing to the smaller size of the villages and the large

1 These figures exclude payments of *Mālik-makbūzas.*

amount of *siwai* income here. The incidence of the revenue per acre in cultivation was raised from 4 annas 4 pies at the previous settlement to 5 annas 2 pies upon revision. In villages where the increase in the revised revenue would result in a large diminution of the proprietor's profits, progressive assessments were given in 182 villages to the amount of Rs. 17,000. In 410 mahals less than 50 per cent of the assets were taken, in 278 between 50 and 55 per cent and in 499 more than 55 per cent. Out of Rs. 84,000 added to the revenue Rs. 57,000 were met by enhancement of rents and the proprietor's profits were reduced by Rs. 27,000 or only 10 per cent of their income as it stood before revision, if only the rental value of home farm land be included. In the important matter of the effect on the financial position of the proprietary class, the settlement was therefore distinctly lenient. Out of the total revenue Rs. 1850 were assigned and the net demand was Rs. 2·75 lakhs.

Duration of the settlement.

195. The new settlement came into effect during the years 1897 to 1899 in different tracts and was made for a period varying from 14 to 15 years. It expires in 1912 in 7 groups and in 1913 in 12 others. The cost of the settlement was Rs. 1·86 lakhs, the expenditure being increased by the delay resulting from the famine of 1897, and by the excision of some culturable land for ryotwāri colonisation. Excluding this expenditure the cost per mile worked out to Rs. 66 excluding the survey and Rs. 124 including it. The total cost of survey and settlement was equivalent to about four times the annual increase of revenue obtained.

Modifications of the assessment.

196. The succession of bad seasons following the settlement necessitated considerable remissions and not more than 60 per cent of the annual demand was collected between the years 1897 and 1901. In 1902 an

inquiry was made into the circumstances of the villages which showed most deterioration and a scheme of abatement was drawn up. It was clear from local inquiry that the important wheat crop had been largely supplanted by millets and other grains of inferior value, and in order to make allowance for this reduction in the rent-paying capacity of the crops, a double value was given to wheat in estimating the fall in cropped area. Thus the area under wheat and its mixtures was added to the total cropped area and where this showed a decline of 20 per cent on the similarly calculated area at settlement, a proportionate abatement of rental and revenue was made. The proceedings extended to 413 villages, and have resulted in abatements of Rs. 22,000 in rents, and Rs. 17,000 in revenue, this sum being equivalent to 21 per cent of the demand of the affected villages. The reduction took effect for 3 years from 1902-03. The continuation of the abatements for a further period of two years in 113 villages was sanctioned in 1905.

Cesses.

197. The demand on account of the road, school and postal cesses in 1904-05 was Rs. 14,000, for additional rates Rs. 5000, and for patwāri cess Rs. 14,000. The patwāri cess is calculated at $5\frac{1}{2}$ per cent on the land revenue, the road cess at 3 per cent, the education cess at 2 per cent, the postal cess at $\frac{1}{2}$ per cent and additional rates at 2 per cent. The cesses thus amounted to 13 per cent on the land revenue, or 8 per cent on the assets. The demand for land revenue in 1904-05 was Rs. 2·58 lakhs and for cesses Rs. 33,000. The abolition of the patwāri cess and additional rates have affected a reduction of Rs. 19,000 or about 7 per cent on the combined demand. The tenants paid $7\frac{1}{2}$ pies per rupee of rental to the patwāri and from 3 pies to 1 anna to the kotwār. Since 1906 the postal cess has been appropriated to roads.

Statistics of tenures.

198. The total area included in holdings in 1904-05 was just over a million acres and was distributed as follows:—About 65,000

acres or 6 per cent of the total consisted of *sīr* land and 52,000 or 5 per cent of *khudkāsht* land. *Mālik-makbuzas* held only 7000 acres or under one per cent of the whole area, absolute occupancy tenants 161,000 acres or 16 per cent, occupancy tenants 333,000 acres or 32 per cent, and ordinary tenants 397,000 acres or 38 per cent, while 14,000 acres were held rent-free from the proprietors or in lieu of service. Since the settlement the area held by occupancy tenants has decreased by 44,000 acres and that belonging to absolute occupancy tenants by 12,000, while ordinary tenants have increased their holding by 49,000 acres. A substantial number of holdings held in the more valuable rights were thus relinquished during the bad seasons. About 11,000 acres were sublet in 1904-05 at the average rate of R. 1-9-2 as against the rate of R. 1-2-0 recorded at last settlement.

Special tenures.

199. Inferior proprietary right now exists in only one village, Jhītāpāti near Chhachhundrā. The District has no zamīndāri estates and no land has been alienated under the Waste Land Rules. Protected status was awarded at settlement to the lessees of a few villages belonging to the Korkū family of Chāndu and the Killedārs of Bhainsdehī on account of their long standing. All these villages were poor ones in forest tracts and were leased because the proprietors could not manage them themselves. The practice of leasing villages is, however, uncommon and no fresh applications for protected status have been sanctioned since the settlement. There are 102 ryotwāri villages with a total area of 85,000 acres, all of which has been excised from Government forest. Of this area 25,000 acres are occupied for cultivation and pay a revenue of nearly Rs. 8000 besides cesses. There are also 107 forest villages, situated on land under the management of the Forest Department. These contain an allotted area of 32,000 acres of which 11,000 are under cultivation and pay Rs. 1700 in revenue, while 29

villages have been deserted. In 1904-05, nearly 18,000 acres, consisting of villages or shares of villages, and 3000 acres included in holdings were held wholly or partially revenue free, the amount of revenue so assigned being Rs. 1700. The bulk of this area has been granted on *ubāri* tenure subject to the payment of a fixed share of the *kāmil-jamā* or revenue assessed under the rules. No important estates have been given free of revenue and the bulk of the grants consist of assignments of land in lieu of the allowances formerly attaching to the offices of Deshmukh and Deshpāndia, and of old grants for military service or for the suppression of dacoity along the main roads.

CHAPTER IX.

GENERAL ADMINISTRATION.

District Staff and subdivisions.

200. Betūl is a District of the Nerbudda Division. The Deputy Commissioner has two executive Assistants but an Assistant Commissioner or member of the Indian Civil Service is only rarely posted to Betūl. The District has usually a Forest Officer of the Provincial and a Medical Officer of the Imperial Service. It is included in the Hoshangābād Public Works division. For administrative purposes the District is divided into two tahsīls, Betūl and Multai, each of which has a tahsīldār and naib-tahsīldār. The civil judicial staff consists of a District Judge, who also performs the duties of Subordinate Judge, and of a munsiff at each tahsīl. The tahsīldārs have civil powers as additional judges to the munsiffs, for the purpose of hearing suits under the Tenancy Act. The Divisional and Sessions Judge of the Nerbudda Division has jurisdiction in Betūl. There are benches of Honorary Magistrates at Badnūr and Multai, each with third class powers, but the Multai bench is at present in abeyance. The Betūl tahsīl contains 874 villages of which 113 are uninhabited and the Multai tahsīl 464, of which 55 are uninhabited. The subdivisional system has not yet been introduced into the District.

Land Record Staff.

201. Until 1822 the patwāri existed only as a private servant of the mālguzār and many villages were without one. In that year the Deputy Commissioner organised a staff of patwāris who were Government servants and liable to punishment without reference to the patels. They were paid as before partly by the mālguzār and partly by the tenants in kind. A readjustment of circles was effected in 1885 under which 174 patwāris were appointed. Under the *wājib-ul-arz* of the

30 years' settlement patwāris were entitled to collect from each tenant one small *kuro* (16 lbs.) of grain, known as the *merh kuro* or boundary *kuro*; and 4 annas per annum per tenant known as the *fārkhatāwan* or payment for writing the *fārkhat* or account of rent. After the revision of 1885 the money value of the estimated emoluments totalled Rs. 22,000, but had increased by 1896 to Rs. 28,000. At the settlement of 1897-98 the number of circles was increased to 191 and their limits were altered to equalise the burden of work. The average area of cultivated land in each varied from 4000 acres, where the villages were small and distances great, to 5000 in the open and settled country. A scale of emoluments was also fixed varying from Rs. 100 to Rs. 135 in ordinary cases and rising to Rs. 155 in circles to which some special disadvantage attached and which therefore required to be more highly paid. The average emoluments were reduced to allow for the increased number of circles. The patwāri cess was levied at 5½ per cent on the revenue and at 7½ pies per rupee on the rental of tenants. The amount payable by mālguzārs came to Rs. 17,000 as against the sum of Rs. 10,000 paid before settlement. The realisations from tenants were estimated at Rs. 12,500, a reduction of nearly Rs. 6500 on the sum formerly realised from *merh kuro* and *fārkhatāwan* dues. The payments of tenants continued to be collected by the patwāri himself. The cost of the Land Record Staff outside the payments by tenants amounted to Rs. 19,000, so that a balance of Rs. 2000 was left to be made up from the Provincial fund. The staff consists of a Superintendent and Assistant Superintendent of Land Records and seven Revenue Inspectors, whose headquarters are at Chicholī, Atner, Bhainsdehī, Pādhar, Kherlī, Jawalkhedā and Māsod. Each Revenue Inspector has on an average 27 patwāris to supervise and each patwāri has 7 villages in his circle. The patwāris are usually Mālwī or Marāthā Brāhmans and a few are Vidurs. In 1906 all payments to the patwāri fund by proprietors and tenants were

abolished, the maintenance of the Land Record Staff being taken over by Government. The remission of Rs. 29,500 thus effected was a substantial boon to the agricultural classes.

Litigation and crime.

202. The crime of the District is light and presents no special features. During the ten years ending 1902 the average number of persons convicted annually for offences affecting human life was 4, for robbery and dacoity 15, for grievous hurt 10, and for house-breaking and theft 279. The statistics of house-breaking and theft are affected by the years of famine. The total annual number of cases disposed of was nearly 1000 during the last decade but had fallen to 500 in 1904. The bulk of the crimes are committed by the impoverished classes of Mehrās and Gonds. There are a number of Muhammadan Banjārās in the District, some of whom are addicted to cattle theft. The following interesting description of their methods is taken from a note by Mr. J. G. J. Duff, District Superintendent of Police :—'The encampment is left to the 'care of the women. The thefts are committed a long way 'from home, the cattle being driven by paths through the 'jungle, and the encampment is reached by a circuitous route, 'all police posts being avoided. The cattle are then taken 'away in another direction for sale. Another way is to lay 'a *dāk* of men from home to the spot selected for the theft and 'for two of this number to drive the cattle to the first 'relay of men posted and so on; each couple of men on 'being relieved disappear and reach their homes by another 'route; the cattle are lifted from the grazing grounds during 'the cowherd's dinner hour. Another way is for the Banjārās 'to go to a market and make extensive purchases of cheap 'and decrepit cattle, each purchase being registered and a 'receipt obtained. They then begin to steal and for each head 'stolen discard one of their worthless purchases. In this way 'they have sale receipts for all their cattle and armed with the 'authenticated certificates pass safely by the scrutiny of the

'police to some other District where they dispose of the 'stolen animals.' Other criminal classes as the Māngs, Nāhals and Pāsis have, Mr. Duff states, abandoned their criminal practices and settled down to honest avocations. The Pārdhis also are no longer criminal but they wander about snaring black buck and birds, and are welcomed by the villagers to whom they sell the flesh. They travel about, pitching their small tents at convenient centres and in the rains throw up grass huts in different localities, but generally staying within the District. The average annual number of civil suits filed during the decade ending 1901 was 2300. In 1904 it increased to 3900, but this may have been due to the filing of awards in consequence of the conciliation proceedings. The number of suits under the Tenancy Act was 350 annually for the decade ending 1901 and nearly 500 for the years 1902-04. The common form of mortgage is by conditional sale and suits for foreclosure are numerous. Fraudulent objections to execution are also not uncommon.

Registration.

203. Since 1904 the office of District Registrar has vested in the Deputy Commissioner. Besides the District Registrar's office sub-registration offices exist at Badnūr, Multai and Atner, each in charge of a special salaried sub-registrar, who receives a commission of 3 annas on every document registered in addition to his salary. The average number of documents registered annually during the decade ending 1901 was 900, while during the three subsequent years it varied between 400 and 700. The average annual receipts for the decade were Rs. 3200, while in subsequent years they have fallen somewhat lower. The average expenditure was Rs. 1300. The District is included in the northern circle of Inspection.

Excise.

204. Up to 1906 the excise system of the District consisted of a Sadr or central distillery at Badnūr serving an area of 634 square

miles with 66 shops and of 56 outstills for the remainder of the District. The total number of permanent shops for the retail vend of liquor was 393, giving one to every 9½ square miles and 700 persons as against the Provincial figure of 13 square miles and 1400 persons. The excise revenue of the District was the ninth highest in the Province in 1904-05. The revenue from country spirits and fermented liquor was Rs. 1·23 lakhs for the decade ending 1901 and Rs. 1·85 lakhs in 1904-05, the incidence per head of population being R. 0-10-5 in the latter year as against the Provincial figure of R. 0-5-7. In 1906 the Madras Contract Distillery system was introduced into the District.

Opium and gānja.

205. In 1904-05 there were 30 permanent and 17 temporary shops for the sale of opium, this being equivalent to one permanent shop for every 128 square miles and 9500 persons. The average revenue for the decade ending 1901 was just under Rs. 20,000 and in 1904-05 nearly Rs. 21,000. The incidence of revenue per head of population was R. 0-1-2 as against the Provincial figure of R. 0-1-8. There were 32 permanent and 18 temporary shops for the sale of gānja in 1904-05 giving one permanent shop to every 120 square miles and 9000 persons. The average revenue for the decade ending 1901 was Rs. 5400 and in 1904-05, Rs. 6600, the incidence in the latter year being 4 pies per head of population as against the Provincial figure of 7.

Statistics of revenue.

206. The following table shows the revenue realised from the District under the principal heads of receipt at the end of the last three decades and during the years 1902-05:—

Year.	Land revenue.	Cesses.	Stamps.	Excise.	Forests.	Registration.	Income-tax.	Other receipts.	Total revenue.
1	2	3	4	5	6	7	8	9	10
1880-81	1,99,000	13,000	31,000	1,03,000	42,000	2,000	...	14,000	4,05,000
1890-91	2,00,000	23,000	41,000	1,55,000	66,000	3,000	9,000	14,000	5,11,000
1900-01	1,95,000	10,000	29,000	1,02,000	79,000	2,000	9,000	15,000	4,41,000
1902-03	2,79,000	38,000	33,000	1,27,000	70,000	3,000	7,000	11,000	5,68,000
1903-04	2,64,000	34,000	31,000	1,64,000	71,000	3,000	5,000	6,000	5,78,000
1904-05	2,67,000	37,000	36,000	2,12,000	80,000	3,000	6,000	5,000	6,46,000

The excise revenue has always been large and in 1905-06 the Deputy Commissioner stated that it should equal or exceed the land revenue. A substantial decline in the receipts from income-tax has followed partly on the raising of the minimum limit of taxation and partly on the decline of incomes dependent on the solvency of the agricultural classes.

Public Works.

207. The value of the buildings borne on the books of the Public Works Department in the District is Rs. 3·63 lakhs and the maintenance charges amount to Rs. 7500. The most important buildings are: the District court house constructed in 1867 at a cost of Rs. 89,000; the District jail built in 1848 at a cost of Rs. 59,000; the circuit house built in 1894 for Rs. 13,000; and the Deputy Commissioner's bungalow constructed in 1904 for Rs. 21,000.

District Council and Local Boards.

208. The management of local affairs outside municipal areas is entrusted to a District Council with three nominated and eleven elected members. The average income of the District Council for the decade ending 1901 was Rs. 27,000, and in the two years 1903-05, Rs. 43,000. The increase was mainly owing to the rise in local rates and a larger contribution from Provincial revenues. In 1904-05, the receipts from Provincial rates were Rs. 13,000, from pounds Rs. 5000 and from contributions out of Provincial funds Rs. 15,000. The average expenditure of the Council for the decade ending 1901 was Rs 28,000, in 1903-04, Rs. 45,000, and in 1904-05, Rs. 39,000. In this year the expenditure on education was Rs. 11,000, on civil works Rs. 8000 and on medical charges Rs. 5000. Under the District Council are two Local Boards, each having jurisdiction over one tahsil. The Betūl Board has three nominated and thirteen elected members, and the Multai Board three and ten respectively. The Local Boards have no independent income but submit estimates of expenditure on minor improvements to the District Council and perform inspection duty.

Municipalities.

209. The District contains two municipal towns Badnūr and Betūl, both of which were constituted municipalities in 1867. The abolition of the Betūl Municipality is in contemplation. Multai was formerly a municipal town but ceased to be so in 1901. The Badnūr committee contains two nominated and twelve elected members and a population of 5566 persons. The receipts for the decade ending 1901 were Rs. 9000 and were the same in 1904-05. In the latter year Rs. 2600 were obtained from a house-tax and Rs. 2700 were received in grants and contributions from Provincial revenues, while the other principal items were education, market-dues, conservancy and pounds. The incidence of taxation per head of population was R. 0-11-5 and of income R. 1-8-8. The expenditure for the decade ending 1901 was Rs. 9000 and in 1904-05 nearly Rs. 10,000. In the latter year Rs. 2200 were spent on education, Rs. 3600 on the upkeep of roads, and Rs. 1800 on drainage. The Betūl Municipality (population 4739) had an income of Rs. 4500 during the decade ending 1901, while in later years the receipts have slightly declined. The income was mainly derived from house-tax and market-dues.

Village sanitation.

210. The provisions of the Village Sanitation Act were introduced into Multai from the year 1901-02. A sum of about Rs. 1500 is raised annually from latrine and conservancy taxes and market-dues, and is expended mainly on a conservancy establishment. The Mukaddam Rules are in force in the villages of Kherlī, Birūl, Pattan, Amlā and Bordehī. The realisations in Kherlī amount to about Rs. 500 annually and are obtained from fees on the sales of cattle and market-dues. Those in Birūl are also obtained from cattle registration fees and have varied from Rs. 300 to Rs. 900 in the last four years. In the other three villages the receipts are derived from a sanitary cess and during the four years ending 1905, they averaged Rs. 200 in

Pattan, Rs. 120 in Amlā and Rs. 90 in Bordehi. The sum realised is expended principally in the employment of a sanitary staff, while in Kherlī and Birūl the market-places are also kept up. Since the institution of the Sanitary Board in 1892-93 a sum of Rs. 8000 was expended on the improvement of the water-supply up to 1904-05. This was raised by grants from the District Council and from local subscriptions, and out of it 17 new wells were constructed and 81 repaired. A Provincial grant of Rs. 1000 was received for the first time in 1903-04 and was utilised for digging five new wells.

Police.

211. The sanctioned strength of the police force under the District Superintendent consists of 2 Inspectors, 5 Sub-Inspectors, 51 head-constables, 3 mounted constables and 260 constables or a total of 322 of all ranks, including 59 officers and 263 men. There is no special reserve in the District and the ordinary reserve consists of 8 officers and 37 men. For administrative purposes the District is divided into 7 Station-house and 22 outpost circles. The Station-houses are located at Badnūr, Shāhpur, Chicholī, Bhainsdehī, Atner, Amlā and Multai. The proportionate strength of the police force is one to every 12 square miles and 900 persons as against the Provincial figure of 11 square miles and 1200 persons. The cost of the force in 1904 was Rs. 50,000. Recruits are obtained both locally and from Northern India. The force includes 81 Brāhmans, 37 Rājputs, and 93 Muhammadans. Among the officers 15 are Brāhmans and 17 Muhammadans.

Kotwārs.

212. At the 30 years' settlement the remuneration of kotwārs consisted of a plot of service land, 5 acres of *rabi* or 10 acres of *kharīf* rent-free; 32 lbs. of grain per plough; 2 lbs. of sugar cane per garden at the time of boiling; one day's gleaning; 8 annas for each widow-marriage; 6 pies on each death; 6 pies for putting up garlands of leaves at a

feast or ceremony; a few mahuā trees; the hides of all cattle dying in the village; and *chapātis* on the occasion of a festival. It was calculated that this amounted to Rs. 34 per annum besides the hides of cattle which in good villages might fetch Rs. 30 or 40. The number of village watchmen was found to be much in excess of the necessary staff. Some small hamlets of 30 or 40 houses supported two kotwārs and the larger villages three or four. In addition to the regular staff there were a number of men, generally one for every kotwār, known as *bahīdārs* or book-carriers, who were the unrecognised assistants of the kotwār and divided the dues with him by private arrangement. The number of kotwārs was reduced from 1228 to 1048 at Mr. Standen's settlement for 1143 villages. He was very cautious in clubbing villages under one kotwār and never did so unless it was impossible to provide for the remuneration of the watchman in any other way. Except in the case of some uninhabited villages in which the kotwār would only have to work two or three times in the year, villages were not usually grouped together under one watchman unless this had been the case previous to the settlement. The minimum remuneration for a kotwār under the new arrangements was Rs. 25 and the maximum seldom exceeded Rs. 50. This included usually the rental value of a service holding as before but not the cultivating profits of the holding. Where the minimum remuneration could not be worked up to by a rate on the rental of tenants not exceeding one anna per rupee of rental, and a contribution from the mālguzār amounting to a fourth of the rental remuneration, the old fees in kind were maintained. This had to be done in 352 villages, all situated in the forest tracts. The practice as regards hides was altered, and in villages where the cultivators desired to retain the hides of cattle a provision was made in the *wājib-ul-arz* that they should be allowed to do so. This was especially desired in villages where sugarcane was grown; the cultivators of these having to pay a considerable sum every year or two for

a new *mot*, when they could frequently have provided it from the hides of their own dead cattle. Where the kotwār was deprived of the hides he was allowed a certain number of *chapātis* as a compensation. The mahuā trees were left to the kotwār as before. Since the settlement the number of kotwārs has apparently largely increased owing to the foundation of new forest and ryotwāri villages, and it is stated that there are now 1262 for 1338 villages, the total amount of their remuneration working out to Rs.37,500 or an average of Rs. 29-12-0 per head. The kotwārs are usually Mehrās and Katiās. These castes consider the office as a distinction, and those who hold it usually return kotwār as their caste name. The kotwārs perform their work well and some of them can read and write.

Jail.

213. Badnūr has a second class District jail in charge of the Civil Surgeon with accommodation for 146 prisoners including 9 females. The average daily number of prisoners in the jail during the last four years was 1901, 87; 1902, 82; 1903, 53; 1904, 51. Of these, ten in the first two years and seven in the last two on an average were prisoners under trial. Between four and six were women. The cost of maintenance per head in 1904 was Rs. 116 and the average cash earnings Rs. 6. The total cost of maintenance was Rs. 5900 and the net cost Rs. 5650. Oil-pressing, aloe-pounding and stone-breaking are the recognised industries of the jail. The aloe fibre is sent to Calcutta and the other products are disposed of locally.

Education. Progress of education.

214. A beginning was made by Government for the provision of education in the Betūl District in 1854, when tahsīl and village schools were opened and supported by private subscription or a voluntary cess on the landowners. In 1870-71 there were 29 Government and 17 private schools with a total of 1878 scholars. In 1881 the numbers had decreased to 26 schools and 1513 scholars, all the private schools except one having apparently been closed.

Subsequently a large number of private schools were again started by means of the personal influence of local officers and in 1884-85 there were 65 schools, of which 37 were private. Subscriptions to these so-called private schools were, however, collected by chuprāssis, and considering that this system led to abuses, the Deputy Commissioner ordered it to be stopped. A belief then arose that Government was opposed to education and the attendance at all schools fell off largely, while the private institutions were threatened with extinction. Ultimately a compromise was arranged and 23 of the indigenous schools were maintained and placed on a better footing. In 1890-91 there were 59 schools with 2758 pupils, the proportion of boys under instruction to those of school-going age being 11. In this year three schools were opened specially for the education of Gond children. On the introduction of the combined system a number of new schools were opened and in 1894-95 the number of schools reached 69 with 3681 scholars. The subsequent bad seasons caused a heavy decline, but since 1902 a rapid increase both in the number of schools and pupils has been effected, and in 1904-05 there were 64 schools with 3749 pupils, the proportion of boys under instruction to those of school-going age being nearly 18.

Educational institutions.

215. The English middle school at Badnūr is the most important institution in the District, containing 84 pupils in the middle school and 196 in two branch schools in 1904. There are vernacular middle schools at Multai, Betūl and Bhainsdehī. Of the 64 schools 55 are maintained by the District Council and 4 by municipalities. The only girls' school in the District is at Betūl and was opened in 1885-86. It is now a departmental school and contained 32 pupils in 1904-05. The District has one Deputy Inspector of Schools and is in the Nerbudda Inspection Circle. The expenditure in 1904-05 was Rs. 21,000, of which Rs. 5000 were provided from Provincial funds, and Rs. 14,000 from

local funds. In 1901 Betūl stood 14th among the Districts of the Province in respect of the literacy of its population, 39 per 1000 of males being able to read and write as against the Provincial average of 54. Only 118 women were returned as literate.

Dispensaries.

216. The District has only three dispensaries, two at Badnūr including the police hospital, and one at Multai. A branch dispensary which formerly existed at Betūl was closed in 1901. The Badnūr main dispensary has accommodation for 23 inpatients and the Multai dispensary for 6 ; the police hospital has 12 beds. The daily average number of indoor patients treated at the dispensaries during the decade ending 1901 was 16 and that of outdoor patients 155. In 1904 the figures were 12 and 73 respectively, the total number of patients treated in this year being nearly 14,000. In this year the income of the dispensary fund was Rs. 8000 of which Rs. 3000 were contributed from Provincial funds, nearly Rs. 2000 from local funds and Rs. 1200 from subscriptions. The average number of operations performed during the decade ending 1901 was 442 and in 1904, 364. Cataract, itch, ulcers and malaria are the diseases most prevalent in the District. The people do not take very kindly to the operation of extraction of the lens ; though evidence of successful operations is forthcoming in a large number of villages. They quite cheerfully undergo the dislocation performed by the native Sathyās, though these practitioners destroy about 80 per cent of the eyes operated on by them.[1]

Vaccination.

217. Vaccination is compulsory only in the municipal towns of Badnūr and Betūl. During the decade ending 1901 the number of successful primary vaccinations performed annually varied between 6000 and 11,000 or between 19 and 34 per mille of population. In 1904-05 it rose to 15,000 or 52 per mille of population. The cost of the department in 1904-05 was Rs. 2000

[1] From a note by Dr. T. W. Quinn, Civil Surgeon.

contributed from Provincial and local funds and the average cost of each successful case was R. 0-1-8. The staff consists of a Superintendent and seven vaccinators.

APPENDIX.

GAZETTEER OF TAHSILS, TOWNS, IMPORTANT VILLAGES, RIVERS AND HILLS.

APPENDIX.

GAZETTEER OF TAHSILS, TOWNS, IMPORTANT VILLAGES, RIVERS AND HILLS.

Akhatwara.—A small village in the Betūl tahsīl, 8 miles south-west of Badnūr near the Māchna river. It contains an old mosque and a well with a stone platform.

Ambhora River.—A river which rises near the village of Gopāl Talai in the Multai tahsīl and flows south and west to join the Tāpti near Garwā after a course of about 20 miles. The villages in the valley of the Ambhorā contain stretches of fertile soil.

Amla.—A large village in the Multai tahsil, 16 miles east of Badnūr and 14 miles north-west of Multai on the Badnūr-Chhindwāra surface road. Its area is 1400 acres and the population in 1901 was 1400 as against nearly 1700 in 1891. The village contains some old tombs which are attributed to the Gonds. About half the cultivated area lies in a fairly fertile valley and there is a good deal of irrigation here. Opium was formerly grown. Some moneylenders reside here and there is a brass-working industry which has now declined in prosperity. Amlā is under the Village Sanitation Act and a sum of about Rs. 120 is raised by a cess on the residents. A weekly market is held on Thursdays. It has a police Station-house, primary school and post office. The village belonged to a Muhammadan family who, however, now retain only a quarter share of it, the balance having been alienated in satisfaction of their debts.

Asirgarh.—An old fort, now in ruins, situated nearly 40 miles north-east of Badnūr and about 15 miles east of Shāhpur in the Betūl tahsīl.

Atner.—A large village in the Betūl tahsil, 22 miles south of Badnūr, with which it is connected by a gravelled

road, while another road passes through Atner from Multai to Bhainsdehī. Its area is nearly 5000 acres and the population was about 2600 persons both in 1891 and 1901. Atner was the headquarters of a naib-tahsīldār until 1855 and it also gave its name to a pargana containing 242 villages with an area of 671 square miles. The village contains the remains of an old Marāthā fort, and there are two springs, which are popularly supposed to come from the river Tāpti at a distance of 8 miles. The centre of the village is occupied by excellent cane and wheat land, a considerable area of the latter being irrigated. Water in abundance is available at a small depth and a well can usually be constructed for twenty or thirty rupees. A weekly market is held on Sundays. The village has a police Station-house, primary school, post office and a registration office. It is divided among a number of shareholders.

Descriptive.

Badnur Town.—The headquarters town of the Betūl tahsīl and the District, situated in 21° 55′ N. and 77° 54′ E. on the small Māchna river, 55 miles from Itārsi railway station and 105 miles from Nāgpur by road. Its elevation is 2173 feet and the climate is pleasantly cool. The population in 1901 was 5566 as against 5014 in 1891. Betūl, the old capital from which the District takes its name, lies on the Nāgpur road three miles from Badnūr, the latter town having informally become the District headquarters in 1822 when the Deputy Commissioner removed his residence to it from Betūl. A military force was quartered here until 1862 and until shortly before the same date Badnūr was the residence of the Commissioner, Nerbudda Division. At a distance of four miles is Kherlā, the former capital of one of the Gond dynasties, where there is an old fort now in ruins.

Municipal undertakings.

Badnūr was created a municipality in 1867, and the committee consists of 14 members. The average income for the decade ending 1901 was Rs. 9000, and it remained at

about the same figure up to 1905. The chief source of income is a *haisiyat* tax which realises something more than Rs. 2000 and the town usually also obtains a substantial grant from Provincial funds. The expenditure is principally on education and conservancy. The municipality contains the villages of Badnūr and Tikāri, the latter of which belongs to the Kurmī family of Betūl. The area of Government land is 427 acres. The water-supply is obtained from tanks and wells, there being three tanks, one of which was improved and provided with stone *ghāts* or flights of steps in 1893 at a cost of Rs. 14,000 under the superintendence of the Deputy Commissioner Colonel Vertue.

Trade and public institutions.

Badnūr is the principal trading town of the District, but it has practically no manufactures. The population consists principally of Government officials, traders, shopkeepers and cartmen. The town is now increasing in importance at the expense of Betūl. A daily mail-cart service connects Badnūr with Itārsi station, the journey usually taking about 8 hours in the open season, while in the rains the traveller runs the risk of being delayed by rivers in flood. A town hall was built by public subscription in 1883 at a cost of Rs. 5000. Markets are held on Sundays and Thursdays. The educational institutions comprise an English middle school with 96 pupils enrolled in 1904-05, two branch schools and an unaided private school. The middle school has a hostel and garden which were constructed partly from funds raised for a memorial to Queen Victoria. The town has the usual District headquarters offices, and a jail, *sarai*, two post offices, a telegraph office and two dispensaries. A station of the Swedish Lutheran Mission has been established here.

Bel River.—A river which rises in the hills leading up to the Multai plateau and flows east passing near Amlā into the Chhindwāra District where it joins the Kanhān. Its course in Betūl is about 25 miles.

Betul Tahsil[1] .—The western tahsīl of the District, lying between 21° 22′ and 22° 22′ N. and 77° 11′ and 78° 3′ E. It is bounded on the north and west by the Hoshangābād and Nimār Districts, on the south by the Amraoti District of Berār and on the east by the Multai tahsīl. The area of the tahsīl is 2770 square miles or 72 per cent of that of the District. The main chain of the Sātpurā range enters the District at its north-east corner and running to the south-west between Shāhpur and Nīmpāni culminates in the imposing mass of Bhanwargarh, where it dwindles away and is lost in the lower hills to the westward. Another distinctly marked range crosses the main chain at right angles near Nīmpāni going north into the Hoshangābād District and south to Badnūr near which town it terminates. The centre of the tahsil is occupied by the open country of the Betūl, Dhāba and Nasirābād parganas and to the south of this the Sātpurā range marks the border, its southern escarpment overlooking the Berār plain. To the west of the open plateau the northern and southern branches of the range meet in the disordered mass of hills of Saolīgarh in Betūl and Kālībhīt and the Melghāt in Nimār and Ellichpur. The principal rivers are the Tāpti, Tawā, Māchna and Morand, the Tawā and Māchna being the only perennial streams of any size. The most fertile part of the tahsīl consists of about sixty villages round Betūl, the northern half of the area being included in the valley of the Māchna and the southern being drained by small affluents of the Tāpti. The surface is here nearly level and is covered with good black soil and very closely cultivated. Next to this come the small valleys of Bhainsdehī and Atner to the north of the Tāpti and of Rānīpur to the east of the range running between Nīmpāni and Badnūr. The Bhainsdehī-Atner valley runs along the south of the tahsīl occupying a space of six to

Physical features.

[1] The bulk of this article is taken from Mr. Standen's Settlement Tahsil Report.

ten miles in width between the hills of the Berār border and those on the southern bank of the Tāpti. It contains good wheat land and the villages are large and entirely cleared of jungle. The Rānipur valley is for the most part cleared of forest and its soil though inclined to be sandy carries a fair quantity of wheat and other cold weather crops. About a hundred villages lie in these two valleys and are the most valuable next to those of the small Betūl plain. The Tawā flowing through the north-eastern corner of the tahsīl has a wide valley, but the soil is very sandy and almost everywhere too poor for cultivation of the more valuable crops. The bulk of it is sparsely settled and large areas have been reserved for Government forest. On the north-west the valleys of the Māchna and Morand consist partly of small fertile basins separated by forest-clad hills, partly of low ranges of sandy hills containing little forest other than mahuā and *harrā* trees and covered by soil of poor fertility, and to the north and west of large areas of hill and jungle where the villages are sparsely scattered and not fully cultivated. The drainage area of the Tāpti south of Bhainsdehi and in the Saolīgarh pargana consists of masses of hills separated by small and narrow valleys in which the soil is poor and stony. One may stand on the summit of one of the hills and see nothing but forest stretching to the horizon in all directions.

Population.

The population of the tahsīl in 1901 was 170,994 persons or 60 per cent of that of the District. In 1891 the population was 194,719 and in 1881, 187,383. The increase between 1881 and 1891 was nearly 4 per cent as against the District figure of nearly 6, and the decrease between 1891 and 1901 was 12·2 per cent as against 11·7 for the District as a whole. The density of population is nearly 62 persons per square mile as against 108 in the Multai tahsīl. The tahsil contains two towns, Badnūr and Betūl, and 872 villages of which 113 are uninhabited according to the village lists. Some new forest villages have been established since the census. Besides the

towns the following thirteen villages contained more than 1000 persons in 1901 :—Andhāria, Atner, Bārvi, Enkhedā, Kherī (Saolīgarh), Kherī (Yashwantā), Māndvi, Rondhā, Sātner, Shāhpur, Bhainsdehī, Chhachhundrā and Chicholī.

Agriculture.

The soils of the tahsīl resemble those of the District generally as described in the chapter on Agriculture. Wheat is generally grown in second-class *morand* soil. Of the whole area 825 square miles or 30 per cent are included in Government forests while another 400 square miles consist of private forests and 160 of scrub jungle and grass. Of the village area of nearly 2000 square miles, a proportion of 56 per cent or rather more than half was occupied for cultivation in 1903-04 as against 57 per cent at last settlement (1895-97) and 40 per cent at the 30 years' settlement. The statistics of cropping at settlement and during the years 1900-05 are shown below:—

Year.	Wheat.	Gram.	Kodon and kutki.	Juār.	Til.	Cotton.	Sugarcane.	Masūr.	Total cropped area (includes double-cropped area.
At last settlement.	77,201	28,986	85,985	42,209	16,991	1,646	2,506	11,023	368,488
1900-01 ...	42,975	12,702	68,297	46,131	24,653	1,253	834	2,497	275,075
1901-02 ...	57,321	20,871	83,504	47,111	19,330	3,016	1,428	3,421	330,365
1902-03 ...	52,042	26,572	83,045	53,477	29,212	4,172	1,601	6,493	355,729
1903-04 ...	73,664	24,814	82,794	50,786	33,818	5,650	1,102	5,888	375,054
1904-05 ...	76,699	21,258	51,320	45,449	37,943	10,149	948	6,829	387,563
Percentage of area under each crop on the total area under crop as shown in the last column 1904-05.	20	5½	13	12	10	3	...	2	

The net cropped area fell from 364,000 acres at last settlement to 265,000 in 1900-01, a decrease of 27 per cent on the settlement figure. In 1904-05, however, the cropped area was 17,000 acres in excess of the settlement figure. The acreage of the wheat crop has also nearly recovered its former standard, while a falling-off in the area under kodon and kutkī has been counterbalanced by a substantial rise in that devoted to the more valuable til crop. The acreage of cotton also increased from 1600 acres at settlement to 10,000 in 1904-05, but that of sugarcane fell from 2500 to a little over 900. At the 30 years' settlement sugarcane occupied 4000 acres. Double-cropping is very rare except in *sihār* soil, in which *bhadelī* or early kutkī is frequently sown in the rains followed by gram in the cold weather.

Land revenue.

The demand for land revenue at the 30 years' settlement was Rs. 98,000 and fell at 59 per cent of the assets. It was raised at the recent settlement (1897-98) to Rs. 1·56 lakhs giving an increase of Rs. 57,000 or 57 per cent on the revenue immediately prior to revision. The revised revenue fell at 53 per cent of the assets, which amounted to Rs. 2·95 lakhs. Some temporary reductions have been made since the settlement and in 1903-04 the demand was Rs. 1·49 lakhs, the demand for cesses in the same year being Rs. 19,000. The removal of the patwāri cess and the additional rate has reduced this figure to Rs. 8000. At the 30 years' settlement the tahsil was divided into the parganas of Betūl with 390 villages, Atner with 242 and Saolīgarh with 215. At last settlement the following assessment groups were formed, the number of villages contained by each being shown in brackets against it:- Betūl (54), Dhāba (76), Nasirābād (80), Chāndu (36), Tāpti (71), Betūl-Khalotī (39), Bhainsdehi (65), Atner (63), Bhanwargarh (62), Khāmāpur (73), Chhachhundrā (41) and Tawā valley (69). The average rent-rate per acre for the tahsīl was R. 0-6-10 as against the District figure of R. 0-7-1 and the revenue rate R. 0-4-11 as against R. 0-5-2

for the District as a whole. The revenue rate for the Betūl group was much the highest in the whole District amounting to R. 0-13-8. The rate for the Chhachhundrā group was R. 0-5-9 and for Nasirābād R. 0-5-3, while in all other groups it was under five annas an acre.

Miscellaneous.

The tahsīl is divided into four Revenue Inspector's circles with headquarters at Chicholī, Atner, Bhainsdehī and Pādhar and 116 patwāri's circles. It has five police Station-houses at Badnūr, Shāhpur, Chicholī, Bhainsdehī and Atner and 17 out-posts.

Betul Town.—A town in the Betūl tahsīl, situated at 21° 52' N. and 77° 56′ E., 3 miles south of Badnūr on the road to Multai and Nāgpur. The Sāmpna river flows close to the town. Betūl gave its name to the District, of which it was the headquarters until 1822, and was also the centre of a pargana of 390 villages with an area of 906 square miles. The population in 1901 was 4739 persons as against 5260 in 1891. Betūl is declining in importance being overshadowed by the neighbouring town of Badnūr, the District headquarters. The village has an old fort and a European cemetery. There are two Hindu temples. The village has a number of well-built houses and looks prosperous. The cultivated area is very fertile and contains good vegetable and sugarcane gardens. With the exception of a number of handicraftsmen the population is solely agricultural and consists largely of Marāthā Brāhmans and Kurmīs. Betūl was created a municipality in 1867 and the municipal committee contains ten members. The average income for the decade ending 1901 was Rs. 4500 and in succeeding years up to 1905 it slightly declined. The chief sources of income are a *haisiyat* tax which realises about Rs. 1700 and market-dues. The expenditure is chiefly on education and conservancy. The water-supply is obtained from wells, of which a large number are in existence. A considerable amount of pottery is made here, consisting of vessels of all sorts, pipe-

bowls and ornamental cups and dishes, which are held in some estimation locally. There are also a number of gold and silver smiths and some dyers and lacquerers. A weekly market is held on Tuesdays to which cattle are brought for sale, about 1500 head being disposed of annually at an average price of Rs. 15 to Rs. 20. Betūl has a second-grade vernaculur middle school with 173 pupils enrolled in 1904-05, and the only girls' school in the District, but this has hitherto not flourished. It has a police outpost and post and telegraph offices. The village is held in shares by a well-known Kunbi family and another of Kanaujia Brāhmans.

Bhainsdehi.—A large village in the Betūl tahsīl situated on the Pūrna river 29 miles south-west of Badnūr. Its area is 3700 acres and the population was just over 2700 persons both in 1891 and 1901. The name means 'The village of the buffaloes.' Bhainsdehī is the most important village in the south-west of the District and a number of mālguzārs and moneylenders reside here. Two *kunds* or shallow wells in the rock are said to contain the water of the river Tāpti flowing underground. The village contains an old temple with fine stone carvings. The entrance and a part of the facade and pillars are still standing and the carvings are in many places wonderfully clear though probably not much less than 300 years old. Additions have been made to the original structure, and obscene features have been introduced into some of the carvings, the majority of which, however, are free from anything of this nature. A large pīpal tree has grown out of the rear of the building and displaced considerable portions of the masonry. The old fort, said to have been built by Thākur Sanmān Singh, the ancestor of the Killedār Rājput family of Bhainsdehī, is now partly in ruins, but the family still live in it. Sanmān Singh was in the service of the Nāgpur Rājā and defended the fort of Gāwīlgarh with great bravery against Sir H. Wellesley's army. Bhainsdehī itself is believed to have been settled by the ancestors of the present proprietors, the Deshmukhs of Bhainsdehī, in the

reign of Aurangzeb; the jurisdiction of Deshmukh over the parganas of Atner, Sātner and Bhainsdehī, was granted to the family who also conducted the judicial and revenue administration They have in their possession a grant or *sanad* signed by the Emperor Muhammad Shāh and Raghujī Bhonsla as his lieutenant. The family are Kunbīs by caste. Bhainsdehī has a considerable trade in grain, and potatoes grown in the vicinity are exported to Berār. Glass bangles are made here and a weekly market is held on Saturdays. Bhainsdehī has a second-grade vernacular middle school with 92 scholars, a police Station-house and post office. A station of the Korkū Central India Hill Mission belonging to the Church of England was opened here in 1891 and supports an orphanage containing about 90 boys.

Bhanwargarh.—A hill fort situated in the village of Pawár Jhandā about 30 miles north of Badnūr. The fort is now in ruins. On the top of the hill are also some water-holes fed by natural springs, while in the surrounding jungle mahuā and *achār* trees are plentiful and the place is therefore a favourite one with the Gonds and Korkūs. These tribes worship the tutelary deity of the hill under the name of Bhanwar. The site is infested by bees. Its elevation is 2930 feet.

Bhopali.—A small village containing only three houses in Government forest in the Multai tahsīl 18 miles north-east of Badnūr and 3 miles from Rānīpur. There is a hill here containing two or three caves. Inside one of them, nearly 20 feet from the entrance, is an image of Mahādeo on to which water trickles from the roof. A second cave contains an image of Pārvatī and a third is known as Gaikothā or the cow-house. The hill is formed of limestone rock and lime is smelted here. On its summit are two platforms of stone, from which it is said that the Chaurāgarh hill of Pachmarhī can be seen. A small stream called the Daryākho flows by the place. A religious fair is held at Bhopāli on the day of Shivrātri in February and lasts for eight days. The attendance has varied between 2000 and 3000 in recent years and

a number of temporary shops are opened for the sale of household utensils and provisions.

Birul.—A large village in the Multai tahsīl about 7 miles south-west of Multai and 21 from Badnūr, on the village road from Kherī to Pattan. Its area is 2500 acres and the population in 1901 was about 1350 persons as against more than 1500 in 1891. Among the residents are a number of traders, Baniās and Telis by caste. Vegetables and sugar-cane are grown in the gardens surrounding the village and an important weekly market for the sale of cattle and grain is held on Wednesdays. During the three years up to 1905 nearly 4000 head of cattle changed hands here annually on an average, the average price realised per head being from fifteen to twenty rupees. A town fund is raised and expended on sanitation and the improvement of the market-place. The receipts have varied from Rs. 300 to Rs. 900 in recent years. The proprietor is a Kunbī.

Borpend.—A village in the Multai tahsil 32 miles south of Badnūr on the Māru river. Borpend has an area of 3500 acres but the population is under 400. It stands at the entrance to a small valley of the Māru containing five other villages and surrounded by hills. The village contains an old temple. The proprietor is a Kirār.

Chicholi.—A large village in the Betūl tahsīl, 17 miles north-west of Badnūr on the Hardā road. Its area is nearly 700 acres and the population was about 1600 both in 1891 and 1901. A naib-tahsīldār was stationed at Chicholī till 1855. At a short distance is Malājpur, the site of an important annual fair. Chicholī has some trade in grain and forest produce which are sent to Itārsi through Nīmpāni. A weekly market is held on Tuesdays to which cattle are brought for sale. The village has a police Station-house, which contains a room for inspecting officers, a primary school and a post office. The proprietor is a Rājput. Pātākhedā, a village about 8 miles distant contains a small settlement of converts of the Swedish Lutheran Mission.

Chichthana.—A small village in the Betūl tahsīl, 10 miles south of Badnūr and situated on the Tāpti river. It contains twelve representations of Mahādeo called the Bārālinga and a small religious fair is held on the last day of Kārtik (October-November).

Dhanora.—A village in the Betūl tahsīl 18 miles south of Badnūr. There are a waterfall and a deep pool of the Tāpti river here, the latter being called Pārasdoh, because it is supposed that the philosopher's stone is buried in the pool.

Dudhia.—A small village in the Betūl tahsīl 22 miles north-west of Badnūr near Chicholī. It contains some stone images of men on horseback.

Godhna.—A small village 12 miles north-west of Badnūr on the Chicholi road with a population of about 600 persons. It contains two temples, still complete, which are said to have been built by the Gond Rājās. One of the temples has an idol while the other is empty. On a hill about a mile to the south of the village are some stone images of men and horses.

Jawalkheda.—A village in the Multai tahsīl about 10 miles north-west of Multai and 21 miles from Badnūr. Its area is nearly 2300 acres and the population in 1901 was 1400 as against 1900 in 1891. The name signifies "The village in the hills." Mr. Standen wrote of it 'The village is one of the 'best in the group, the greater part of its land consisting of 'good level wheat fields lying in a wide valley. It grew '130 acres of opium at the 30 years' settlement. The village 'is famous for high rents, quarrels and contumacy.' A number of traders and moneylenders reside here and there are brass-working and dyeing industries. A weekly market is held on Saturdays. Rai Sāhib Sundar Lāl is the proprietor, and the village has a primary school and post office.

Kajli.—A small village in the Multai tahsīl nearly 24 miles north-east of Badnūr on tne village road to Chhindwāra and standing on the Bel river. It is often called Kajlī Kanaujia, Kanaujia being another village quite close

to Kajlī. Near the village on the Bel river are the remains of some old temples and some naked stone images. It is said locally that two masons, Nangar and Bhongar, used to make stone idols in an enclosure surrounded by walls, working in a state of nudity. They had ordered their sisters to give them warning before entering the enclosure when they came to bring food. But one day the sisters entered the enclosure without giving warning and saw their brothers naked, on which they were all immediately changed into stone images. The story is probably told to account for the naked figures which are really Jain deities.

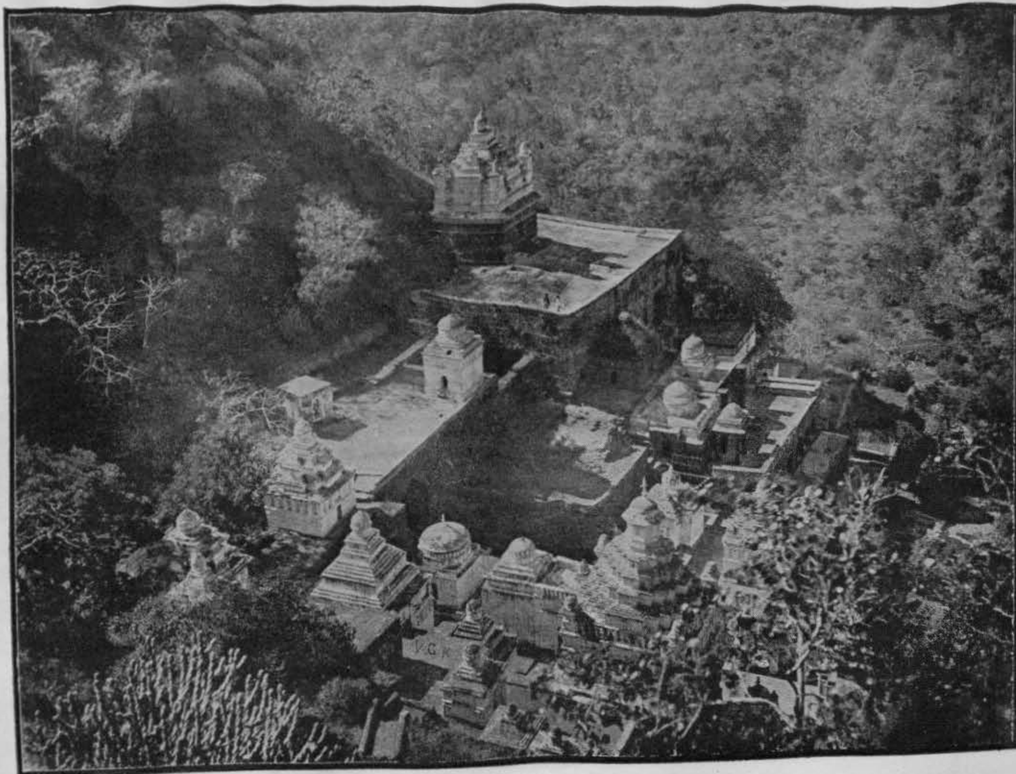
Khamla.—A village in the Betūl tahsīl standing on the small Khāmla plateau to which it gives its name, 48 miles south-west of Badnūr on the border of the District. Its area is nearly 3000 acres and population about 500 persons. The village contains an old fort. A number of Gaolīs reside here and breed cattle, and there is also some trade in forest produce. The proprietor is a Rājput.

Kherla.—A small village in the Betūl tahsīl about 4 miles east of Badnūr. The village contains the remains of the old fort which was the headquarters of the Gond-Rājput dynasty of Kherlā and from which the surrounding country was governed. The occurrences at Kherlā form part of the history of the District and have been described in the second chapter. Portions of the inner and outer walls and the ruins of buildings in the interior are still standing. The fort enclosed space sufficient to accommodate a large garrison and was built round a hill; from the summit of this a good view is obtained of the fertile Betūl valley on whose produce the garrison must have relied for its subsistence. The ruins are considered to be of Muhammadan origin and the fort may well have been rebuilt after the several sieges which it underwent, when it finally came into the possession of Hoshang Shāh of Mālwā. The grave of Mukund Rāj Swāmi is still to be seen in the precincts, and at the adjoining village of Umri is the tomb of a Muhammadan general, probably the

belonging to the shrine, and in the central one is a *gaddī* or wooden seat with a carpet on it to represent Deojī. Offerings of sugar and sweetmeats are made to it. People from Hoshangābād always come to Malājpur to have evil spirits cast out. Another small local gathering is held during the month of Baisākh (April-May). The village contains a large masonry well with a broad parapet at the top and a staircase leading down into it, which is said to have been built by a dancing-girl with the earnings which she obtained in one night from 999 wedding processions. A large tank was constructed here by Government in the famine of 1900 at a cost of Rs. 31,000. The village has a primary school. The proprietor is a Rājput.

Morand River (Mūrandh).—A stream which rises in the low hills near Chicholī and flows due north through broken mountainous country to join the Ganjāl river in Hoshangābād District. Its drainage area comprises the north-west of the District and is bounded by that of the Tāpti on the south and the Māchna on the east. During the rains it is a mountain torrent and for the rest of the year a clear shallow stream. A vein of indifferent coal has been discovered in the bed of the Morand before its exit from the hills. Its total length is 56 miles.

Muktagiri.—A collection of temples standing on the Berār border about 52 miles south-west of Badnūr and a few miles north of Ellichpur. Muktāgiri is a village just across the border in Berār but the name is always applied to the temples, which are situated within the boundary of the village of Thaporā. The temples are of modern Jain architecture and of no particular interest. They form, however, a picturesque group perched on precipitous ledges of rock at the end of a secluded and wild ravine, where a pretty waterfall comes tumbling down to the valley from the highlands above. The local story about the temples is that once a shepherd lived on the hill and grazed a thousand goats. One day only half the goats came home in the evening. So he



went to look for the others, but for a long time could not climb the hill. When he at last succeeded in doing so he found the goats grazing round a temple in which was a golden image. Up to this time the temple was not known, and as the image was of gold it was considered to belong to the Jains. They therefore made Muktāgiri a sacred place and built other temples there. An annual fair is held in Kārtik (October-November) and is attended by about 5000 Jains from Nāgpur, Berār and other places. The hill is called Mendhāgir from *mendhā*, a sheep. The people say that any European officer who visits Muktāgiri will be promoted when he leaves the District.

Multai Tahsil. [1]—The eastern tahsīl of the District lying between 21° 25′ and 22° 23′ N. and 77° 57′ and 78° 34′ E. The area of the tahsīl is 1056 square miles or 28 per cent of that of the District. It is situated on the Sātpurā plateau, and is bounded by the Betūl tahsīl on the west and the Chhindwāra District and *jāgīrs* on the east. On the north it abuts on the wild hilly country of the Hoshangābād District in the neighbourhood of Pachmarhī, while the plains of Berār and the Sausar tahsil of Chhindwāra form the southern boundary. The main chain of the Sātpurās passes through the extreme north of the tahsīl and throws off spurs and ridges to the south, so that the country down to the valley of the Bel river is hilly in the extreme and as a consequence chiefly occupied by Government forest; what villages there are being small patches of cultivation on very thin sandy soil in the heart of the jungle. From the above description, however, about twenty villages lying in the fairly open country of the Rānīpur valley must be excluded. South of the mountainous country which covers about one-fourth of the tahsīl area lies the Bel valley, comprising a width of five or six miles of open country to the north of the river, in which some wheat

Descriptive.

[1] The bulk of this article is taken from Mr. Standen's Settlement Tahsil Report.

and a good deal of sugarcane are grown on the sandy soil. The whole area to the south of the Bel river with the exception of the villages lying on the edge of the Sātpurās immediately above the low country may be described as a rolling plateau, the high-lying parts of which are covered with poor stony soils, while in the valleys there is generally black soil of more or less fertility growing wheat and sugarcane. The surface slopes gradually to the south, and there are no hills worth the name and scarcely a tree except the mango-groves round the wells in low-lying land. Immediately south of the Bel the proportion of stony upland to fertile valley is about three to one, but the further south one goes the more fertile does the country become, until in the Pattan and Māsod tracts the proportion is reversed and fertile wheat land covers three times as large an area as the stony downs. The traveller in the north of the tahsil after passing for an hour over the downs, than which nothing more desolate in appearance can well be imagined, may come suddenly without warning on to a small valley green with wheat and sugarcane and dotted with clumps of fine mangoes, each of which shades the bullocks drawing water for a cane-garden. Some of the prettiest cultivation in the Province is to be seen in these valleys, and the undulating country on the south affords the same pleasing view on a larger scale. Water is everywhere exceedingly abundant. The watershed between the Tāpti and Godāvari system lies somewhere near the centre of the tahsīl close to the town of Multai; the Tāpti rises here and flows south-west, its principal affluents being the small Tawā from the north and the Ambhorā from the south. A mile or two from the source of the Tāpti is that of the Wardhā river, which flows south-east and eventually falls into the Prānhita and thus into the Godāvari. Besides these rivers every valley has its streamlet, which usually flows till the beginning of the hot weather at least, and sometimes throughout the year. On the extreme south lies a bulk of steep hills and deep ravines, very narrow in

the east, but widening to the west till on the boundary between the two tahsils it is ten miles broad from north to south. In fact after falling gently from the north of the tahsīl, as though to sink quietly into the plains of Berār, the land is suddenly heaved up again before finally dropping in steep scarps to the low country. This area contains large stretches of Government forest, but many of the mālguzāri villages are well cleared and nearly fully occupied, notably so in the west where the Māru river has cut a wide valley through the surrounding hills.

Population.

The population in 1901 was 114,369 or 40 per cent of that of the District. In 1891 the population was 128,477 and in 1881 117,522. The increase between 1881 and 1891 was 9·3 per cent as against the District figure of 5·9, and the decrease between 1891 and 1901 was 11 per cent as against 11·7 for the District. The density of population is 108 persons per square mile, Multai being considerably more thickly populated than Betūl. There is not much difference in the proportion of Government forest to the total area in the two tahsīls, though the forests in Multai are concentrated in a large block on the extreme north and a strip along the southern border, while the open country is almost bare of them. But a much higher proportion of the village area is cultivated in Multai, and less scope for the expansion of population therefore exists here than in Betūl. The tahsīl contains 464 villages, of which 409 are inhabited. There are no towns, but in proportion to the total area the number of large villages is higher than in Betūl. In 1901 the following fifteen villages contained more than 1000 persons :—Amlā, Baghorā, Bārangwāri, Barkher, Birūl. Ghāt Birolī, Hiwarkher, Jāmthi Sawāsen, Kherlī, Morkhā, Multai, Pattan, Ridhorā, Sainkhedā, and Amraoti. Kunbīs are the principal agricultural caste of the open country, while the Mowāsi Korkūs are found in considerable numbers in the forest villages to the north. The cultivators of the villages round the Bel river

are principally Bhoyars who formerly grew opium and when this was prohibited took to sugarcane. Now that this crop has to a large extent ceased to be profitable, the tenants of these villages are less prosperous than they were. Mālis and Kirārs are fairly numerous in the south. The latter are a very extravagant caste, fond of gambling, cock-fighting and feasting and very quarrelsome. Many of them have large holdings and are comfortably off, though they usually owe considerable sums. Mehrās are found in large numbers in the south and are usually in poor circumstances, this fact being ascribed by the other castes to their drunken habits. The villages on the southern *ghāts* are inhabited almost exclusively by Gonds, who are much better off than the majority of the tribe in the District. Their fields of *bardī* soil produce fair juār crops and in some villages cotton does well. At the same time their rents are light. Mr. Standen gives an instance of a Gond tenant with only a very few acres of wheat land who had saved Rs. 200 from his cultivation for the marriage of his son; but finding that the mālguzār needed a loan, he put the money out on interest.

Agriculture.

Of the total area 364 square miles or 34 per cent are under Government forest, while 64 square miles are covered by tree forest and 68 by scrub jungle and grass in private hands. In 1903-04, 75 per cent of the village area was occupied for cultivation as against 76 per cent at last settlement (1895-97) and 65 per cent at the 30 years' settlement, the area occupied in 1903-04 being 441,000 acres. The net cropped area was 256,000 acres at the recent settlement and fell to 204,000 acres in 1900-01, a decrease of 21 per cent. The decline in cultivation had however been more than made up in 1904-05, when the cropped area exceeded that recorded at settlement by 16,000 acres. The principal statistics of cropping at settlement and during the years 1900-05 are shown on the next page.

The acreage of wheat has substantially increased since the settlement and that of kodon and kutkī has nearly

Year.	Wheat.	Gram.	Kodon and kutki.	Juār.	Til	Cotton.	Sugarcane.	Masūr.	Total cropped area (includes double-cropped area).
At last settlement.	60,192	16,137	48,621	36,763	7,395	708	3,608	9,718	263,514
1900-01 ...	35,146	7,805	50,124	46,751	11,382	3,026	949	2,749	214,319
1901-02 ...	54,897	16,053	50,647	42,740	8,812	4,622	1,780	3,399	257,649
1902-03 ...	50,340	17,071	53,664	46,918	11,732	8,326	2,639	5,792	268,990
1903-04 ...	75,658	13,978	44,581	34,851	9,861	12,784	2,070	7,452	272,187
1904-05 ...	76,442	11,893	93,740	38,116	10,938	17,614	1,841	8,039	285,403
Percentage of area under each crop on the total area under crop as shown in the last column, 1904-05.	27	4	33	13	4	6	·6	3	

doubled. Cotton has been much more largely cultivated in recent years. The sugarcane area has not declined so seriously as in the Betūl tahsīl. Wheat is the staple crop in good land and it is grown in rotation with tiurā, gram and masūr and mixed with gram, and in light soil with linseed. Red wheats are little grown except in a small batch of villages in the south-east where no *pissī* is found. Red wheat is said to require better soil than *pissī* and in this way the trade with Europe has expanded the wheat area, not only by raising the price of wheat but by enabling cultivators to sow land with *pissī*, which it would not have been worth while to sow with red wheats. Another advantage of *pissī* which is universally recognised in forest villages is that pig damage red wheat much more than white. Linseed is little grown and that only in the poorest of wheat land and sometimes in black soil too shallow for wheat. Juār, generally mixed with tūr, and *jagnī* are the principal autumn crops, and are often sown in rotation. But in a year when the late rains are short, these crops do not do well on light soils. There is a good deal of enterprise and agricultural skill among the

cultivators. Spring crops are not infrequently irrigated both from wells and streams. But wheat must be irrigated with caution as it not infrequently happens that a cultivator who waters his field too soon in the belief that no rain is coming, is rewarded with a heavy fall of rain and a rusted crop. It is not unusual to find that the surface drainage of the hills has been kept out of the good fields at their feet by trenches dug all round the edge of the fields. By this means land can be greatly improved at a very small expense. Green-soiling with *jagnī* is occasionally practised in sugarcane gardens.

Land revenue.

The demand for land revenue at the 30 years' settlement, was Rs. 91,000, and fell at 62 per cent of the assets. This was raised at last settlement (1897-98) to Rs. 1·21 lakhs giving an increase of Rs. 30,000 or 33 per cent on the revenue immediately prior to revision and falling at 56 per cent of the assets, which amounted to Rs. 2·14 lakhs. The cash rental increased from Rs. 1·31 to Rs. 1·75 lakhs including the payments of *mālik-makbūzas.* In 1903-04 the net land-revenue demand was Rs. 1·16 lakhs and the demand for cesses in the same year was Rs. 15,000. The abolition of the patwāri cess and the additional rate has reduced this figure to Rs. 6000. At the 30 years' settlement the whole tahsīl was included in the Multai pargana. At the recent settlement the following seven assessment groups were formed, the number of villages contained by each being shown in brackets against it:—Multai-Khalotī (32), Māsod-Pattan (67), Jawalkhedā (76), Dahāwa-Dunāwa (91), Tawā valley (35), Aonria-Bordehi (84), and Chichandā (29). The average rent-rate of the tahsīl was R. 0-7-4, as against R. 0-6-10, for the Betūl tahsīl, the corresponding figures of revenue incidence being R. 0-5-6 and R. 0-4-11. The Māsod-Pattan group had the highest revenue incidence of R. 0-9-1 per acre and the Jawalkhedā group came next with R. 0-6-8. None of the other groups had an incidence of

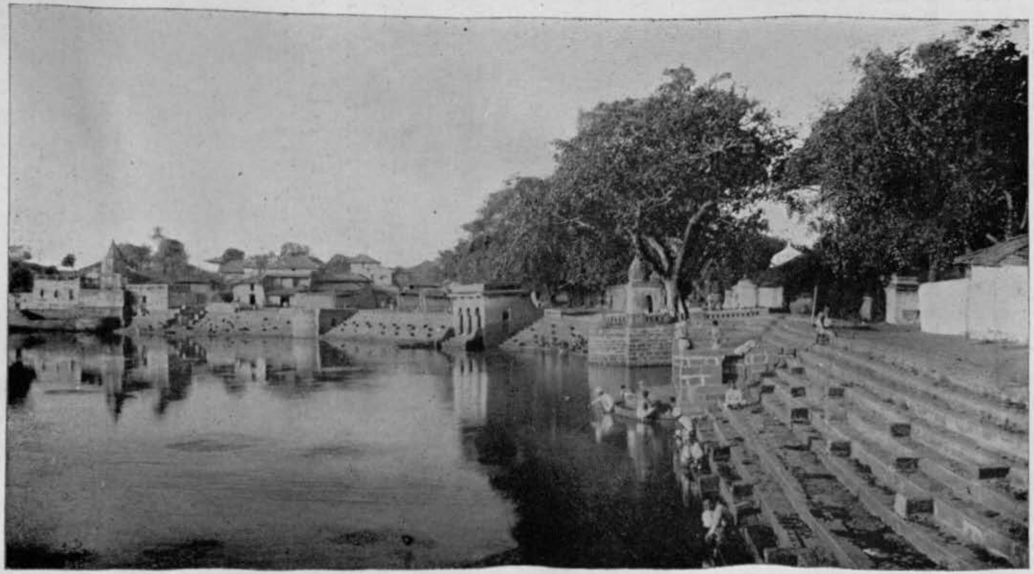


Photo -Mechl. Dept., Thomason College. Roorkee.

MULTAI TANK.

more than 5 annas and that of Chichandā was the lowest in the District with R. 0-2-1.

Miscellaneous.

The tahsīl is divided into three Revenue Inspector's circles with headquarters at Kherlī, Jawalkhedā and Māsod and 75 patwāri's circles. It has two Station-houses at Multai and Amlā and five outposts.

Multai Village.—The headquarters of the Multai tahsīl, situated on the north-western road, 28 miles south-east of Badnūr and 77 miles from Nāgpur. Its area is 3400 acres and the population in 1901 was 3339 persons as against 3505 in 1891. The elevation of Multai is 2526 feet and it is one of the highest points of the open country of the Sātpurā plateau. The field area consists of a large stretch of undulating stony ridges, with a couple of small highly irrigated valleys round the village site and a basin of level wheat land. The name Multai is a corruption of *mūl tāpi* 'the source of the Tāpti,' and the river is believed to have its source in the sacred tank of Multai, though it really rises two miles away. The tank covers an area of 8½ acres and is surrounded by stone flights of steps and some old temples. These contain one or two illegible inscriptions and a Gosain in the village has three copper-plate grants which have been deciphered. A part of the stone terrace is now in disrepair. An annual fair is held in the month of Kārtik (October-November) lasting for 20 days for the purpose of bathing in the tank. The attendance was until recently about 20,000, but is reported to have decreased. Carpets woven and dyed in red, black and white lines from Ellichpur, silk-bordered cloths from Nāgpur, brass vessels from Umrer and Pāndhurnā, and large *karāhis* or pans for boiling surgarcane from Baghorā and Nāra in Wardhā are brought for sale, from two hundred to three hundred shops being opened. Multai was a municipal town until 1901, when the municipality was abolished and the provisions of the Village Sanitation Act introduced. The annual income of the

committee is from Rs. 1000 to Rs. 1500, and it is expended on sanitation and the upkeep of roads. Markets are held on Sundays and Thursdays. Multai has a vernacular middle school with 164 pupils enrolled in 1904-05, a police Station-house, combined post and telegraph offices and dispensary. The village formerly belonged to an old family of Mālwī Brāhmans, who still reside there, but it has now practically passed into the possession of Rai Sāhib Seth Sundar Lāl. It has until recently been noted for the religious factions between the Muhammadan and Hindu residents, the number of Muhammadans being 468. A few of the older residents remember the visit of Tantia Topi to Multai, when his troops halted for the day below the village and bathed in the Tāpti. The story is that he called up all the Brāhmans in the place and gave them a golden *asharfī* each, which was afterwards confiscated by the Government. His troopers were directed to pay for their provisions and did so, but afterwards another trooper would come along and take away the money.

Pahawadi.—A small village in the Betūl tahsīl, 26 miles north of Badnūr near Shāhpur. It contains some old temples and a mosque.

Pattan.—A village in the Multai tahsīl about 10 miles south of Multai on the Berār road. Its area is 3400 acres and the population in 1901 was 1500 persons as against more than 1700 in 1891. Pattan is a substantial village, the tenants being principally Kunbīs and Mālis. It is one of the few places above the passes where cotton has been grown for some time past. There are a number of Muhammadan ruins and the perforated onyx stones called Sulaimān's beads have been found here. Pattan is under the Village Sanitation Act and a sum of about Rs. 150 is raised annually for sanitary purposes. A weekly market is held on Saturdays. The village has a primary school, post office and police outpost and an inspection hut has been erected. The proprietor is a Kurmi. The tomb of a Muhammadan Fakīr called Sulaimān Shāh, who resided here is still worshipped. Tradition

has it that Sulaimān Shāh lived for a long time in the village, and was supported by the labour of a man and woman who devoted themselves to him and made enough for his support, by bringing headloads of wood for sale. The saint was under the impression that he was being maintained by contributions from the villagers and he did not discover the truth until one day he found that the man's head was bald, and on asking him the reason, found that it was due to his carrying the wood. On this the saint was so wrathful at the absence of charity displayed by the villagers that he turned the whole village upside down and buried it in the ground. And even now when excavations are made it is said that remains are dug out of the earth upside down. There is another tradition that the village is fatal to pigs, no doubt because Muhammadan saints have resided here. No pigs are kept within its limits and it is said that they are not even driven through it, but taken round outside the boundary.

Salbardi.—A small village in the Multai tahsīl on the Berār border, about 44 miles south of Badnūr on the Māru river, with a population of about 300 persons. A cave in a hill by the village, approached through a long narrow passage, contains an idol of Mahādeo. It is popularly supposed that an underground passage leads from this cave to Mahādeo's hill at Pachmarhī, and it is said that Mahādeo put two thousand goats into the passage at Pachmarhī and only one came out at Sālbardī. It is said also that a hole in the hill leads down to the cave and that this hole was made by Bhimsen so that he might see Mahādeo better. There were also hot and cold water springs here, but they have now become mixed. A temple on the hill contains a headless image of Devi and a pool of reddish-coloured water in front of the temple is supposed to be tinged by the blood that fell from the image when its head was cut off. An annual fair is held here in March, lasting for three days and is attended by about 5000 persons, nearly a

hundred temporary shops being opened for the sale of goods. In the village is a quarry of hard stone from which mortars, cups and cooking slabs are made. There is also a quarry of limestone. The proprietor is a Khatrī.

Sampna River.—A small stream which rises in the hills on the east of the Betūl tahsīl and flowing west past the town of Betūl, joins the Māchna near Badnūr after a course of about 15 miles.

Saoligarh.—A hill fort situated in the extreme north-west of the District nearly 48 miles from Badnūr and 16 miles north of Chīrāpātla. The hill, which has an elevation of 2232 feet, is in the village of Kursanā. The fort is now in ruins. On the hill are 7 water-holes cut in the basalt rock, which are fed by natural springs.

Satpura Hills.[1]—A range of hills in the centre of India. The name, which is modern, originally belonged only to the hills which divide the Nerbudda and Tāpti valleys in Nimār Central Provinces, and which were styled the *sāt putrā* or seven sons of the Vindhyan mountains. Another derivation is from *sāt purā* (seven folds), referring to the numerous parallel ridges of the range. The term Sātpurās is now, however, customarily applied to the whole range, which commencing at Amarkantak in Rewah, Central India (22° 40' N., 81° 46' E.), runs south of the Nerbudda river nearly down to the western coast. The Sātpurās are sometimes, but incorrectly, included under the Vindhya range. Taking Amarkantak as the eastern boundary, the Sātpurās extend from east to west for about 600 miles, and in their greatest depth, exceed 100 miles from north to south. The shape of the range is almost triangular. From Amarkantak an outer ridge runs south-west for about 100 miles to the Sāletekrī hills in the Bālāghāt District, thus forming, as it were, the head of the range, which, shrinking as it proceeds westward

Geographical position.

[1] The article on the Sātpurā Hills is a reprint from the draft article for the Imperial Gazetteer.

from a broad tableland to two parallel ridges ends, so far as the Central Provinces are concerned, at the famous hill fortress of Asīrgarh. Beyond this point the Rājpiplā hills, which separate the valley of the Nerbudda from that of the Tāpti, complete the chain as far as the Western Ghāts. On the tableland comprised between the northern and southern faces of the range are situated the Districts of Mandlā, part of Bālāghāt, Seonī, Chhindwāra and Betūl.

Geological formation.

The superficial stratum covering the main Sātpurā range is trappean, but in parts of all the Central Provinces Districts which it traverses crystalline rocks are uppermost, and over the Pachmarhi hills the sandstone is also uncovered. In Mandlā the higher peaks are capped with laterite. On the north and south the approaches to the Sātpurās are marked as far west as Turanmāl by low lines of foot-hills. These are succeeded by the steep slopes leading up to the summit of the plateau, traversed in all directions by narrow deep ravines hollowed out by the action of the streams and rivers, and covered throughout their extent with forest.

Features of the plateau.

Portions of the Sātpurā plateau consist, as in the Mandlā and the north of the Chhindwāra District, of a rugged mass of hills hurled together by volcanic action. But the greater part is an undulating tableland, a succession of bare stony ridges, and narrow fertile valleys, into which the soil has been deposited by drainage. In a few level tracts as in the valleys of the Māchna and Sāmpna near Betūl, and the open plain between Seonī and Chhindwāra, there are extensive areas of productive land. Scattered over the plateau isolated flat-topped hills rise abruptly from the plain. The scenery of the northern and southern hills as observed from the roads which traverse them, is of remarkable beauty. The drainage of the Sātpurās is carried off on the north by the Nerbudda river and to the south by the Waingangā, Wardhā and Tāpti, all of which have their source in these hills

Heights.

The highest peaks are contained in the northern range rising abruptly from the valley of the Nerbudda and generally sloping down to the plateau, but towards the west the southern range has the greater elevation. Another noticeable feature is a number of small tablelands lying among the hills at a greater height than the bulk of the plateau. Of these Pachmarhī (3530 feet) and Chikaldā in Berār (3664 feet) have been formed into hill stations, while Raigarh (2200 feet) in the Bālāghāt District and Khāmla in Betūl (3700 feet) are famous grazing and breeding grounds for cattle. Dhūpgarh (4454 feet) is the highest point on the range, and there are a few others of over 4000. Among the peaks that rise from 3000 to 3800 feet above sea-level, the grandest is Turanmāl (Bombay Presidency), a long rather narrow tableland 3300 feet above the sea and about 16 square miles in area. West of this the mountainous land presents a wall-like appearance both towards the Nerbudda on the north and the Tāpti on the south. On the eastern side the Tāsdīn Valī (Central India) commands a magnificent view of the surrounding country. The general height of the plateau is about 2000 feet.

Forests.

The hills and slopes are covered by forest extending over some thousands of square miles, but much of this is of little value owing to unrestricted fellings prior to the adoption of a system of conservancy, and to the shifting cultivation practised by the aboriginal tribes, which led to patches being annually cleared and burnt down. The most valuable forests are those of the *sāl* tree (*Shorea robusta*) on the eastern hills, and the teak on the west.

Hill tribes and communications.

The Sātpurā hills have formed in the past a refuge for the aboriginal or Dravidian tribes, driven out of the plains by the advance of Hindu civilisation. Here they retired and occupied the stony and barren slopes which the

new settlers, with the rich lowlands at their disposal, disdained to cultivate, and here they still rear their light rain crops of millets which are scarcely more than grass, barely tickling the soil with the plough and eking out a scanty subsistence with the roots and fruits of the forests, and the pursuit of game. The Baigās, the wildest of these tribes, have even now scarcely attained to the rudiments of cultivation, but the Gonds, the Korkūs and the Bhīls have made some progress by contact with their Hindu neighbours. The open plateau has for two or three centuries been peopled by Hindu immigrants, but it is only in the last fifty years that travelling has been rendered safe and easy by the construction of metalled roads winding up the steep passes, and enabling wheeled traffic to pass over the heavy land of the valleys. Till then such trade as there was, was conducted by nomad Banjārās on pack-bullocks. The first railway across the Sātpurā plateau, a narrow-gauge extension of the Bengal-Nāgpur line from Gondia to Jubbulpore, is now (1904) under construction. The Great Indian Peninsula Railway, from Bombay to Jubbulpore, runs through a breach in the range just east of Asīrgarh, while the Bombay-Agra branch road crosses further to the west.

Shahpur.—A large village in the Betūl tahsīl, situated 23 miles north of Badnūr, on the Itārsi road and standing on the river Māchna. Its area is only 280 acres, but the population was more than 1500 persons in 1901, having increased by a hundred during the previous decade. The village is said to have been founded about 150 years ago. In 1866 its population was 1300 persons. The Māchna is crossed by a low-level bridge over which the river flows when in flood Owing to its situation on the Itārsi road Shāhpur has a considerable amount of trade. A weekly market is held on Wednesdays. The village has a police Station-house, a primary school, and post and telegraph offices. There is a good encamping ground and a dak bungalow and inspection hut have been constructed. The proprietors are Shyām Lāl

and Rikhīrām Kanaujia Brāhmans, to whom Shāhpur with a considerable estate was granted at the 30 years' settlement.

Shergarh.—An uninhabited village in the Multai tahsīl, 33 miles south-east of Badnūr and near Dārīghāt and Bhainsdehī. There is an old fort here with two fine gateways in ruins, and also the remains of a mosque and an *Idgāh*. These buildings are said to have been erected by Sher Khān, one of Aurangzeb's generals, in celebration of a victory gained over the Marāthās.

Course in the Central Provinces.

Tapti River.[1]—One of the great rivers of Western India. The name is derived from *tāp*, heat, and the Tāpti is said by the Brāhmans to have been created by the sun to protect himself from his own warmth. The Tāpti is believed to rise in the sacred tank of Multai (*mūl-tāpi*, the source of the Tāpti) on the Sātpura plateau, but its real source is two miles distant (21° 48′ N. and 78° 15′ E.). It flows in a westerly direction through the Betūl District, at first traversing an open and partially cultivated plain, and then plunging into a rocky gorge of the Sātpurā hills between the Kālībhīt range in Hoshangābād and Chikaldā in Berār. Its bed here is rocky, overhung by steep banks, and bordered by forests. At a distance of 120 miles from its source it enters the Nimār District and for 30 miles more is still confined in a comparatively narrow valley. A few miles above Burhānpur, the valley opens out, the Sātpurā hills receding north and south, and opposite that town the river valley has become a fine rich basin of alluvial soil about 20 miles wide. In the centre of this tract the Tāpti flows between the towns of Burhānpur and ZaināRbād, and then passes into the Khāndesh District of Bombay. In its upper valley are several basins of exceedingly rich soil, but they have long been covered by forest, and it is only lately that the process of clearing them for cultivation has been undertaken.

[1] The article on the Tāpti river is a reprint from the draft article for the Imperial Gazetteer.

Shortly after entering the Khāndesh District the Tāpti receives on the left bank the Pūrna from the hills of Berār, and then flows for about 150 miles through a broad and fertile valley, bounded on the north by the Sātpurās and on the south by the Sātmālas. Further on the hills close in, and the river descends through wild and wooded country for about 80 miles, after which it sweeps southwards to the sea through the alluvial plain of Surat, and is a tidal river for the last 30 miles of its course. The banks (30 to 60 feet) are too high for irrigation, and the bed is crossed at several places by ridges of rock; hence the river is only navigable for about 20 miles from the sea. The Tāpti runs so near the foot of the Sātpurās, that its tributaries on the right bank are small, but on the left bank after its junction with the Pūrna, it receives through the Gīrna (150 miles long) the drainage of the hills of Bāglān, and through the Bori, the Pānjhra and the Borai, that of the northern buttress of the Western Ghāts. The waters of the Gīrna and the Pānjhra are dammed up in several places and used for irrigation. On the lower course of the Tāpti, floods are not uncommon, and have at times done much damage to the city of Surat. The river is crossed at Bhusāwal by the Jubbulpore branch of the Great Indian Peninsula Railway, at Savaldā by the Bombay-Agra road, and at Surat by the Bombay-Baroda and Central India Railway. The Tāpti has a local reputa-a are
tion for sanctity, the chief *tīrthas* or holy places be curious
Chāngdev, at the confluence with the Pūrna, and ths in the
above Surat The Fort of Thālner and the cit hā is crossed
are the places of most historic note on its Pulgaon.
total length of which is 436 miles. Th
(Suwali), famous in early European
and the scene of a sea-fight bet
Portuguese, lay at the mouth of
its approaches having been

In Bombay.

Tawa River.—A
jāgīrs and flows t

Pioneer Press, No. 1186—23-4-07.

passing out of it in a northerly direction into Hoshangābād District and joining the Nerbudda about four miles from Hoshangābād town. Its total length is 105 miles, of which 42 are within Betūl. The river drains a large area in the hills, its tributaries reaching many miles to the east and west and its floods in the rainy season are sudden and violent. The bed of the Tawā exposes many fine sections showing the geological structure of the hills through which it has forced its way. A number of seams of coal are exposed in the bed of the river near Rāwandeo. Though the valley of the Tawā is of small value from the agricultural point of view, its affluents the Phophas and Daryākho rising in the hills a few miles north of Badnūr flow through the fertile Rānīpur tract.

Wardha River[1] .—A river in the Central Provinces which rises on the Multai plateau of the Betūl District (at 21° 50′ N. and 78° 24′ E.), some 70 miles north-west of the town of Nāgpur, and flowing south and south-east, separates the Nāgpur, Wardhā and Chānda Districts of the Central Provinces from Berār and the Nizām's Dominions. After a course of 290 miles from its source, the Wardhā meets the Waingangā river at Seonī in the Chānda District, and the united stream under the name of the Prānhita flows on to join the Godāvari. The bed of the Wardhā, from its source to its junction with the Paingangā near the town of Chānda, is deep and rocky, changing from a swift torrent in the ...nsoon months to a succession of nearly stagnant pools in ...mer. For the last hundred miles of its course below ...lows in a clear channel, broken only by a barrier ...encing above the confluence of the Waingangā ...n the Prānhita. The project entertained in ...or rendering the Godāvari and Wardhā ...d the excavation of a channel through ...was known as the Third Barrier. ... and except that timber is

[1] The article on the Tāpti river is a reprin... ...print from the draft article the Imperial Gazetteer.

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Burhānpur and Za...
District of Bombay. I...
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for cultivation has been undertaken...

sometimes floated up from the Ahiri forests in the monsoon months, no use is now made of the river for navigation. The area drained by the Wardhā includes the Wardhā District, with parts of Nāgpur and Chānda and of Berār. On the eastern or Central Provinces side, it is a rich tract of country confined between the river and a range of hills to the north, and widening to the south as the hills recede. The valley is covered with light black soil, and is a well-known cotton-growing tract. In the Chānda District, the Wardhā valley coalfield extends for a long distance in the vicinity of the Wardhā, Prānhita, and Godāvari rivers. The coal is worked by a Government colliery at Warorā, and fresh seams are now being exploited in other localities. The principal tributaries of the Wardhā are the Wunnā and Erai from the Central Provinces, and the Paingangā which drains the southern and eastern portions of the plain of Berār. The banks of the river are in several places picturesquely crowned by small temples and tombs, and numerous ruined forts in the background recall the wild period through which the valley passed, during the Marāthā wars and the Pindāri raids. Kaundinyapur (Dewalwāda) on the Berār bank opposite to the Wardhā District, is believed to represent the site of a buried city, celebrated in the Bhāgavat as the metropolis of the kingdom of *Vidarbha* (Berār). A large religious fair is held there. At Ballālpur near Chānda are the ruins of a palace of the Gond kings and a curious temple on an islet in the river which for some months in the year is several feet under water. The Wardhā is crossed by the Great Indian Peninsula Railway at Pulgaon.